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PEACE HANDBOOKS

VOL. XIX

PORTUGUESE
POSSESSIONS

1920

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PEACE HANDBOOKS

Issued by the Historical Section
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VOL. XIX.

PORTUGUESE POSSESSIONS

- 115. THE PORTUGUESE COLONIAL
EMPIRE
- 116. AZORES AND MADEIRA
- 117. CAPE VERDE ISLANDS
- 118. PORTUGUESE GUINEA
- 119. SAN THOMÉ, PRINCIPE, AND
AJUDA
- 120. ANGOLA, WITH CABINDA
- 121. MOZAMBIQUE

LONDON:
H.M. STATIONERY OFFICE.

1920.

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Editorial Note.

In the spring of 1917 the Foreign Office, in connection with the preparation which they were making for the work of the Peace Conference, established a special section whose duty it should be to provide the British Delegates to the Peace Conference with information in the most convenient form—geographical, economic, historical, social, religious and political—respecting the different countries, districts, islands, &c., with which they might have to deal. In addition, volumes were prepared on certain general subjects, mostly of an historical nature, concerning which it appeared that a special study would be useful.

The historical information was compiled by trained writers on historical subjects, who (in most cases) gave their services without any remuneration. For the geographical sections valuable assistance was given by the Intelligence Division (Naval Staff) of the Admiralty; and for the economic sections, by the War Trade Intelligence Department, which had been established by the Foreign Office. Of the maps accompanying the series, some were prepared by the above-mentioned department of the Admiralty, but the bulk of them were the work of the Geographical Section of the General Staff (Military Intelligence Division) of the War Office.

Now that the Conference has nearly completed its task, the Foreign Office, in response to numerous enquiries and requests, has decided to issue the books for public use, believing that they will be useful to students of history, politics, economics and foreign affairs, to publicists generally and to business men and travellers. It is hardly necessary to say that some of the subjects dealt with in the series have not in fact come under discussion at the Peace Conference; but, as the books treating of them contain valuable information, it has been thought advisable to include them.

It must be understood that, although the series of volumes was prepared under the authority, and is now issued with the sanction, of the Foreign Office, that Office is not to be regarded as guaranteeing the accuracy of every statement which they contain or as identifying itself with all the opinions expressed in the several volumes; the books were not prepared in the Foreign Office itself, but are in the nature of information provided for the Foreign Office and the British Delegation.

The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time and a prohibitive expense; and, in the second, the political and other conditions of a great part of Europe and of the Nearer and Middle East are still unsettled and in such a state of flux that any attempt to describe them would have been incorrect or misleading. The books are therefore to be taken as describing, in general, *ante-bellum* conditions, though in a few cases, where it seemed specially desirable, the account has been brought down to a later date.

G. W. PROTHERO,

General Editor and formerly

Director of the Historical Section.

January 1920.

*HANDBOOKS PREPARED UNDER THE DIRECTION OF THE
HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 115*

THE FORMATION OF THE PORTUGUESE COLONIAL EMPIRE

LONDON :
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	PAGE
<i>Last Enterprises of d'Albuquerque</i>	18
Attempt to take Aden	18
Unsuccessful Expedition against Jedda	18
Hormuz taken	18
Strength of Portuguese Position	18
vi. EXTENSION OF PORTUGUESE POWER IN THE EAST	19
Portuguese Expeditions to the East Coast of India, China, and the Moluccas	19
<i>The Moluccas</i>	19
The Moluccas awarded to Spain	19
Bought by Portugal	19
<i>The Persian Gulf</i>	19
Strength of the Portuguese	19
The Turks reach the Persian Gulf at Basra	19
<i>West Coast of India</i>	20
Portuguese Acquisitions	20
vii. CONFLICT WITH OTTOMAN TURKS	20
<i>Turkish Naval Expeditions</i>	20
Turkish Expedition of 1538	20
Siege of Diu	20
Turkish Fleet retreats	20
Turkish Menace to India	20
Piri Bey's Expedition of 1551-52	21
Sidi Ali's Expedition of 1554	21
viii. BRAZIL	22
Discovery	22
First Governor and Early Settlements	22
Bahia becomes the Capital	23
Subsequent Events	23
ix. REVIVAL OF WEST AFRICAN COLONIZATION	23
<i>The Congo Kingdom</i>	23
<i>Angola</i>	23
Paulo Dias's Expeditions	23
São Paulo de Loanda becomes the Capital	24
x. PERIOD OF DECLINE	24
Effects of Portuguese Connexion with Spain	24
Dutch Rivalry	24
English Attacks on Indian Trade	24
Dutch in the East Indies	24
Attacks on Macao	24
Expulsion of Portuguese from Japan	25
Formosa and Ceylon	25
Peace between Holland and Portugal	25

TABLE OF CONTENTS

[No. 115]

	PAGE
<i>Brazil</i>	25
Dutch Attacks	25
Attack on Bahia	25
Recovery of Brazil	25
<i>Bengal</i>	25
<i>East Africa</i>	26
<i>Mainland of India</i>	26
Ruin of Portuguese Power	26
Position of England in India	26
<i>Africa</i>	26
Dutch Ravages in Africa	26
Fall and Recovery of São Paulo de Loanda	26
Expulsion of Dutch from Angola	27
Extension of Angola	27
Development of Angola	27
— <i>Loss of Control over Indian Ocean</i>	27
<i>Present Distribution of the East Coast of Africa</i>	28
xi. CONCLUSION	28
Eastern and African Dominions	28
Brazil : Relations with Portugal	28
Present Portuguese Oversea Possessions	29
German Designs	29
Possible Future Developments	29
AUTHORITIES	30

TABLE OF CONTENTS

	PAGE
POLITICAL HISTORY	
CHRONOLOGICAL SUMMARY	1
i. BEGINNINGS OF COLONIZATION	4
<i>The Atlantic Islands</i>	4
The Azores	4
Madeira	4
The Canary Islands	4
The Cape Verde Islands	5
<i>Portuguese Guinea</i>	5
Dinis Dias	5
Other Explorers	5
Fort Arguin	5
<i>Gold Coast</i>	6
Fernão Gomes	6
Fort of São Jorge da Mina	6
<i>Islands in the Gulf of Guinea</i>	6
Fernando Po	6
Annobon, São Thomé, and Príncipe	6
<i>The Gulf of Guinea north of the Congo</i>	6
Exploration under King João II	6
<i>The Congo Kingdom</i>	7
The Padrões	7
Diogo Cão	7
First mention of River Congo	7
Rock Inscription	7
Diogo Cão's Second Voyage	7
Beginning of Angola Colony	8
Conversions	8
Church of São Salvador at Ambassa	8
ii. STRUGGLE WITH TURKEY FOR TRADE ROUTES	8
Project of Sea Route to India	8
The Turkish Power	8
The Red Sea and Persian Gulf	8
Drain on Portuguese Resources	9
Neglect of West African Settlements	9
iii. EAST AFRICA	9
Importance of East Africa to Portugal	9
Arab Traders	9
Arab Settlements seized by Portuguese	10

TABLE OF CONTENTS

[No. 115]

	PAGE
<i>Sofāla</i>	10
Gold-seeking	10
Fort built at Sofāla	10
<i>Mozambique</i>	10
Fort built	10
Visits of Explorers	10
Importance of Harbour	11
<i>Kilwa</i>	11
Relations with Arabs	11
Erection of Fort	11
Loss of Kilwa	11
<i>Mombasa</i>	11
D'Almeida takes Mombasa	12
Attack and Defeat of Turkish Fleet	12
Erection of Fort	12
Appointment of Governor of Portuguese East Africa	12
<i>Mq̄lindi, Lamu Island, Barāwa, and Mogadishu</i>	12
iv. THE EAST COAST ISLANDS	13
<i>Madagascar</i>	13
Discovery by Fernāo Soares	13
Madagascar called Sāo Lourenço	13
<i>Zanzibar, Pemba, and Mafia</i>	13
<i>Sokotra</i>	13
v. PORTUGUESE CONTROL OF THE INDIAN OCEAN	14
<i>Portuguese Settlements in India</i>	14
Voyages of Discovery	14
The Indian Empires and Kingdoms	14
Ports and Trading Centres	15
Cochin and Cananor	15
<i>D'Almeida</i>	15
D'Almeida becomes Viceroy	15
Exploration of West Coast	15
Opposition to Portuguese Encroachments	16
Egyptian Intervention	16
Lourenço d'Almeida defeated at Chāul	16
Defeat of Egyptian and Gujarāt Fleet at Diu	16
<i>D'Albuquerque</i>	16
D'Albuquerque becomes Governor	16
Attack on Arabian Ports	17
Difficulties with d'Almeida	17
Death of d'Almeida	17
<i>Goa</i>	17
Seizure of Goa	17
Seizure of Malacca	18

THE FORMATION OF THE PORTUGUESE COLONIAL EMPIRE

POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1418. Discovery of Porto Santo by Perestrelo.
- 1418-20. Discovery of Madeira by Gonçalves (Zarco) and Vaz.
- 1432. Discovery of Santa Maria in the Azores by G. V. Cabral.
- 1434. Cape Bojador doubled by Gil Eannes.
- 1440. Dinis Fernandes reaches Senegal River.
- 1441. Cape Blanco reached by Nuno Tristão.
- 1444. Colonization of Azores begun.
- 1445. Discovery of Rio de Ouro (Oro) and (?) Cape Verde.
- 1445-62. Discovery of Southern Cape Verde Islands.
- 1446. Sierra Leone discovered by Alvaro Fernandes.
- 1447. Nuno Tristão killed.
- 1460. Death of Prince Henry the Navigator.
- 1460-1. Pedro de Cintra explores Guinea coast, discovering
Cape Verga, Cape Sagres, and Cape Mesurado.
- 1469. Lease of rights of exploration on Guinea coast for five
years to Fernão Gomes.
- 1469-71. J. de Santarem and Pero Escovar, sent out by
Fernão Gomes, discover A Mina (Elmina), as far as
Cape Sta. Catherina.
- 1469-71. Cape Sta. Catherina discovered by L. de Sequeira,
2° S. of the Equator.
- 1471. The Equator first crossed.
- 1471-81. Discovery of the islands of São Thomé, Anno Bom,
and Principe.
- 1478. Formosa or Fernando Po discovered and named after
Fernão do Po.
- 1479. Rights over Canary Islands surrendered to Castille.
- 1482. Fort completed at São Jorge da Mina.
- 1482 (?). Mouth of the Congo discovered by Diogo Cão.
- 1482 (?). *Padrão* erected at Cape Padron.
- 1484-6. Voyage of Diogo Cão to Cape Cross.
- 1486. Bartolomeu Dias rounds the Cape of Good Hope and
reaches Great Fish River.
- 1487. Covilhão's journey to Hormuz, Aden, and Abyssinia.
- 1490. Fort built at Ambassa (São Salvador, capital of Congo
Kingdom).

1494. Treaty of Tordesillas.
1497 (November 22). Vasco da Gama rounds Cape of Good Hope.
1498 (March 2). Vasco da Gama reaches Mozambique.
1498 (May 20). Vasco da Gama reaches Calicut.
1500. Cabral discovers coast of Brazil, April 22.
1500 (April 24). Cabral anchors at Porto Seguro.
1500. Cabral arrives at Calicut, September 13.
1501. Ascension Island discovered by João da Nova on his voyage to India.
1502. St. Helena discovered by João da Nova on his return voyage.
1505. Francisco d'Almeida first Viceroy of India. Takes Mombasa. Builds forts at Kilwa, Anchediva, and Cananor. Lourenço d'Almeida reaches Ceylon. King of Kandy becomes tributary.
1505. Pero d'Anhaya founds fort at Sofāla.
1506. Fernão Soares discovers east coast of Madagascar.
1506. Tristão da Cunha and Afonso d'Albuquerque sail for India. Island of Tristan d'Acunha discovered on voyage. Barāwa taken.
1507. Island of Sokotra occupied.
1507. Mozambique fort built.
1507. Lourenço d'Almeida killed and Portuguese fleet defeated by Egyptian fleet under Mīr Husain at Chāul.
1508. D'Albuquerque's first expedition to Hormuz.
1508. Francisco d'Almeida sacks Dābhol.
1509. D'Almeida defeats Egyptian fleet at Diu.
1509. Death of d'Almeida at Saldanha Bay.
1510. Goa taken by d'Albuquerque.
1511. Malacca taken by d'Albuquerque.
1513. D'Albuquerque's expedition to Aden and the Red Sea fails.
1515. Hormuz occupied and fort built by d'Albuquerque.
1515. Death of d'Albuquerque.
1517. Portuguese expedition to China.
1520-1. Sequeira's Red Sea expedition.
1521. Fort built in Ceylon.
1521. Fort built at Pacem in Sumatra.
1522. Ternate in Moluccas occupied by Portugal.
1522. Tidore in Moluccas occupied by Spain.
1524. Junta of Badajoz.
1530. Colonization of Brazil.
1534. Bassein and Dāmān occupied.
1535. Fort built at Diu.
1538. Siege of Diu and defeat of Turkish fleet.
1541. Estevão da Gama's Red Sea expedition.

- 1541-3. Christovão da Gama's Abyssinian adventure.
- 1548. Sugar cultivation introduced in Brazil.
- 1549. Bahia becomes capital of Brazil.
- 1550. Figueira's expedition to the Red Sea.
- 1550. Katif in the Persian Gulf taken.
- 1551. Piri Bey's fleet attacks and takes Muscat.
- 1552. Piri Bey's fleet driven back to Red Sea.
- 1552. Macao founded.
- 1554. Sidī Ali's fleet defeated and wrecked.
- 1555-57. Attempted French settlement in Brazil.
- 1559. First expedition of Paulo Dias to Angola.
- 1575. Barreto's expedition on the Zambezi.
- 1575. Second expedition on the Zambezi. Foundation of
Loanda.
- 1580. Portugal subject to Philip II of Spain.
- 1584-89. Turkish raids on East Africa.
- 1594. Dutch ships excluded from Lisbon.
- 1601. Dutch attacks on Portuguese colonies begin.
- 1605. Dutch take Amboina.
- 1607. Dutch siege of Mozambique fails.
- 1607. Dutch take Ternate and Tidore in the Moluccas.
- 1617. Foundation of Benguela.
- 1622. The English and Persians take Hormuz.
- 1628. Dutch take Olinda in Brazil.
- 1632. Portuguese expelled from Hugli by Shāh Jahān.
- 1633-38. Dutch occupy northern provinces of Brazil.
- 1636. Dutch attacks on Ceylon begin.
- 1637. Dutch take Elmina on Gold Coast.
- 1637-38. Pedro Teixeira ascends the Amazon from Para to
Quito and returns.
- 1637-44. Prince John Maurice of Nassau rules Dutch Brazil.
- 1640. Revolt of Portugal from Spanish rule.
- 1641. Dutch occupation of Loanda and San Thomé.
- 1641. Success of Portuguese against Dutch in Brazil.
- 1648. Expedition from Brazil against the Dutch in Loanda.
- 1651. Final expulsion of Dutch from Loanda.
- 1652. Muscat taken by the 'Omān Seyyids.
- 1654. Final expulsion of Dutch from Brazil.
- 1658. The last Portuguese fort in Ceylon, Jafnapatam, taken by
Dutch.
- 1658. Negapatam taken by Dutch.
- 1661. Peace between Holland and Portugal. Bombay and
Tangier ceded to England.
- 1661. Quilon taken by Dutch.
- 1662. Cranganore and Cochin taken by Dutch.
- 1663. Cananor taken by Dutch.

1698. All East African stations north of Mozambique taken by Seyyids of 'Omān.
1725. Mombasa finally lost after reoccupation by Portuguese.
1737. Mahrattas take Thāna.
1739. Mahrattas take Bassein.
1740. Mahrattas take Chāul.
1752. East African Government separated from Goa.
1763. Rio de Janeiro becomes capital of Brazil.
1764. Country south of Benguella organized by S. Coutinho.
1798. Expedition of Lacerda to Lake Mweru.
1808. Portuguese Court takes refuge in Brazil.
1822. Separation of Brazil from Portugal.
1877-8. Serpa Pinto's journey from Loanda to East Africa:
1884-5. Journey from Benguella to East Africa of Ivens and Capello.
1886. African Treaty with Germany.
1891. African Treaty with England.

i. BEGINNINGS OF COLONIZATION

THE Portuguese Colonial Empire owes its inception and early development to the enterprise of Dom Henrique, Infante of Portugal, known to fame as Prince Henry the Navigator, second son of King João I (who reigned from 1385 to 1433) and Queen Philippa, daughter of John of Gaunt.

The Atlantic Islands.—The first-fruits of the explorations organized by him in the early part of the fifteenth century were the Azores and Madeira, which are at the present day considered to be not colonies but integral parts of Portugal. The group of the Azores (Açores or 'Hawk' Islands) was rediscovered in 1431 and explored by G. V. Cabral in 1431-2. The settlement of the islands began in 1444. Madeira (which some consider to have been already known in the preceding century) was discovered in 1418-20. Both these groups were uninhabited at the time of their discovery, and the population is of Portuguese origin. The Canary Islands were inhabited by a race known as the Guanches, who had affinities with the Berbers of North-west Africa. Part of the group was conquered and annexed about 1402-6, by Jean de Bethencourt,

a gentleman from northern France, who seems to have worked at times under Dom Henrique and at times under the King of Castille. All Portuguese rights were transferred to Spain in 1479, and the Canary Islands are now an integral part of Spain.

The true colonial Empire of Portugal, proceeding southwards along the west coast of Africa and following the line of discovery of the fifteenth century, may be considered as beginning with the Atlantic archipelago known as the *Cape Verde Islands*, and with it the district on the mainland known as Portuguese Guinea, including the Bissagos (or Bijagos) Islands.

Portuguese Guinea.—The territory now included in Portuguese Guinea was probably part of the coast discovered by Dinis Dias in 1445 or 1446. In 1462 all rights on this coast were given to the colonists of the island of San Thiago, one of the Cape Verde group. Succeeding travellers rapidly extended Portuguese knowledge of the coasts of Guinea from this point onwards; but this tract around the Rio Grande—small in comparison with the possessions on the continent of Africa of the European Powers—is the only part of the mainland of Guinea held by Portugal at the present day. The Cabo dos Mastos in that territory was reached by João Gonçalves (Zarco) in 1446. The death of Nuno Tristão took place on this coast in 1447.¹

The chronicle of Azurara was finished in 1453, but records no event later than 1448. The farthest southward extension recorded by Azurara is the journey of Alvaro Fernandes to a point 110 leagues south of Cape Verde (i.e. slightly to the south of Sierra Leone). This point was reached in 1446. No extension southwards seems to have been made for several years after the death of Prince Henry in 1460; but in 1461 King Afonso had built a fort at Arguin just south of Cape

¹ It was formerly said to have taken place in the Rio Grande, but later inquiries ascribe it to Gambia. There is, however, an island which bears the name of Nuno Tristão, just south of the Rio Grande.

Blanco¹ to protect Portuguese trade on the coast already explored.

Gold Coast.—After the discovery of Sierra Leone by Alvaro Fernandes in 1446, explorers pushed on; and Soeiro da Costa established a factory for the trade in gold on the river near Axem (Assine), west of Cape Three Points. But the greatest extension was due to Fernão Gomes, to whom in 1469 the King gave a contract at 200 milreis a year to explore 100 leagues of coast every year for five years, starting from Sierra Leone. This led to the occupation of the Gold Coast and the establishment of the celebrated fort of São Jorge da Mina (St. George of the Mine).² The first discovery of gold was made in 1471, and the fort was completed in 1482.

Islands in the Gulf of Guinea.—It was during this period that the islands in the Gulf of Guinea were discovered, all of them before the death of King Afonso in 1481. The island first known as Formosa was discovered by Fernão do Po, and the name was changed in his honour to that which it still bears, now written Fernando Po or Fernando Poo. The islands of Anno Bom (Annobon), São Thomé, and Príncipe followed.

The Gulf of Guinea north of the Congo.—The explorers employed by Fernão Gomes in accordance with his contract also continued the exploration of the coast of Guinea round the great southern bend of the Gulf as far as the Cape of Santa Catherina, two degrees south of the Equator, and so pointed out the way to the expedition under Diogo Cão in 1482.³

After the fort of São Jorge da Mina was finished the new King, João II, one of the greatest kings of

¹ There is some doubt as to the date of the completion of Fort Arguin, but it was probably not completed till after the death of Prince Henry.

² Known briefly as *A Mina* or the Mine. This name was afterwards corrupted during the Dutch occupation (from 1637 onwards) into Elmina.

³ Authorities fail to agree on the dates of Diogo Cão's voyages. Some give 1485 as the date of the discovery of the Zaire (Congo). See *Belgian Congo and Angola*, Nos. 99 and 120 of this series.

Portugal, assumed the title of Lord of Guinea in virtue of various papal decrees recognizing the conquests of Prince Henry and King Afonso. He determined that in future all explorers should carry with them stone columns (*padrões*) with the arms of Portugal on one side and the name and titles of the King and his captains on the other. These were to be erected in newly occupied territories.

The Congo Kingdom.—The first to carry such monuments was Diogo Cão, who was sent out in 1482, and after passing the Cape of Santa Catherina arrived at the mouth of a great river, where he erected the first *padrão* on a cape to the south of this river, still known as Cape Padron. This was the great river which, as de Barros says,

‘is now called Congo as it passes through the kingdom of that name, discovered by Diogo Cam on this voyage, but which by the natives is called Zaire: better known by its waters than by its name; for in that season, which is the winter in those regions, it comes forth so proudly into the sea that its sweet waters are found twenty leagues from the shore’.

This is the first mention in history of the great River Congo. Diogo Cão went up the river for some distance, and an interesting light is thrown on his voyage by an inscription of his, discovered on a rock below the first great cataract of the Congo. This is described by the Rev. J. Lewis in *The Old Kingdom of Kongo* (Geographical Journal, 1908), where a photographic plate of the inscription is given. It is also alluded to by Sir H. H. Johnston in a review of Frobenius’s *Im Schatten des Kongostaates* in the same volume. The discovery is said to have been made by a Swedish missionary in 1906; but the inscription was already known to the Portuguese, and is mentioned by Carvatho e Vasconcellos in the first edition of his *Colonias Portuguezas*, 1896. To announce his great discovery Diogo Cão returned at once to Portugal, taking certain natives with him and leaving some Portuguese as hostages for their safe return.

On his second voyage he continued his exploration

southwards along the coast for 200 leagues, revisited the Congo, induced the King of the Congo to accept the lordship of King João, and to become a Christian. This may be considered the beginning of the Colony of Angola. Although, as will be seen, little progress was made for many years, it began with some promise of success. A leading man was sent as ambassador to King João; and was baptized. The King hoped that similar conversions would follow in the Benin Kingdom near São Jorge da Mina; but it seems that the king and people of that land were too firmly attached to their *ju-jus*, and could not be brought to accept a new creed. Shortly afterwards a mission was sent out to the Congo Kingdom, and great numbers of the people were converted. A church was built at the capital, Ambassa, which was called São Salvador, and a fort erected in 1490. Christianity, however, gradually died out, and the power of the Portuguese decayed, only to be revived by Paulo Dias de Novaes in 1559.

ii. STRUGGLE WITH TURKEY FOR TRADE ROUTES

The delay in developing the colonies on the west coast of Africa may be ascribed mainly to the pre-occupation of the Portuguese King with his vast project of opening up a sea-route to India, and, after this route was opened, to the overwhelming nature of the task which Portugal had undertaken, both in the East and in America. This task was not merely to open the way for trade to western Europe but to fight the Moslem powers in the Indian Ocean.

At the head of these powers was Turkey, the ruthless enemy of European civilization, who depended on her grip on the old trade routes to the East for the revenues she needed to maintain her powerful armies and navies. At the time of the first Portuguese entry into the Indian Ocean Turkey had not yet obtained possession of the ports in the Red Sea and Persian Gulf; but these fell into her hands in the first half of the sixteenth century, and

the Portuguese had thenceforward to struggle against the most powerful military monarchy then existing in the world. With the ignominious failure of the Turkish siege of Diu in 1538, the struggle was practically over.

Little trade went through the Persian Gulf and the Red Sea, and the nations of western Europe were able to profit by the efforts of Portugal. Portugal herself fell under the paralysing rule of Philip II of Spain in 1580, and when she recovered her independence in 1640 the mastery of the trade of the East had passed to England and Holland.

After the discovery of the sea-route to India in 1498 armadas were fitted out and dispatched almost every year to the East, and the drain on Portuguese resources in men and material was great and constant. The accidental discovery of Brazil by Pedro Alvares Cabral in 1500 led to a further demand on these resources, and little was left for West African development. What was available was devoted mainly to the slave-trade, which grew rapidly. The West African settlements soon depended mainly on this trade and on that in gold, and the country round the Gulf of Guinea was quite unsuited to European colonization. When Bartolomeu Dias rounded the Cape in 1486, and when Vasco da Gama pushed on into the Indian Ocean in 1498, no one seems to have guessed that they were throwing away opportunities of occupying a land with a climate suitable for Europeans.

iii. EAST AFRICA

More attention was paid to East than to West Africa for two reasons ; firstly, that it was necessary for the Portuguese to hold some strong points on this coast to secure their route to India and to provision and refit their ships ; secondly, that the way into the interior had already been made clear for them by the Arab traders whose fortified trading towns were dotted along the coast from Mogadishu (Makdishu) to Sofala. The Arabs, so far as they were able to do so, wisely occupied islands near

the shore. These the Portuguese seized, and farther on they followed the same plan at Hormuz, Diu, Goa, and Malacca; the British possessions at Singapore and Hongkong are modern examples of the practice. For a power commanding the sea, but disposing of slender land forces, it was obviously the best plan, as it secured them against perpetual attacks from savage tribes, and at the same time admitted of unrestricted trade.

Sofala.—On this coast the rumour of boundless stores of gold in the interior of the continent was the *ignis fatuus* which led to the undoing of the Portuguese. The first fort built by the Portuguese was at Sofala, south of the Zambezi, on a fever-stricken island at the mouth of the river, a little distance south of the modern port of Beira. Here gold dust brought from the interior was received by the Arabs in exchange for goods, and the Portuguese hoped for great things from opening up the great kingdom of Benametapa, afterwards better known as Monomotapa. Pero d'Anhaya was sent from Portugal by the King in 1505, to build a fortress at Sofala, and this was done. He himself died of fever before it was finished; and, although the fort existed as a trading centre up to the middle of the seventeenth century and the Portuguese authority extended some little way inland, the settlement never had great prosperity, and the search for gold never produced results worth the expenditure of life and money which it entailed.

Mozambique.—The next point where a fort was established was Mozambique. The site was an island near the shore, which has many advantages of position, but no water-supply. Its occupation by the Arabs was not of very old standing. It was visited by Vasco da Gama on March 2, 1498, on his first voyage,¹ and by several others before the fort was founded in 1507 by Duarte de Mello. It long remained the principal settlement on this part of the coast; and a new fort was built under

¹ See Correa, *Lendas da India*, I, pp. 785–6. Fuller details are given in *Mozambique*, No. 121 of this series.

the orders of King Sebastião in 1568. Its principal value to the Portuguese was its harbour, where ships could conveniently be repaired. Its trade was never of great value. It is still a port of the Portuguese colony to which it gives its name; but the seat of government is now at Lourenço Marques, whither it was transferred after the award¹ of Marshal MacMahon in 1875. Mozambique, however, has to some extent revived owing to the improved administration of later days.

Kilwa.—Kilwa, called by the Portuguese Quiloa, was the next place to the north of Mozambique where the Portuguese established a fort. Here they found a strong Arab community, perhaps of Persian origin, the ruler of which had exercised a kind of suzerainty over the ports to the south, including both Mozambique and Sofala. Vasco da Gama, on his second voyage, directed, but failed to enforce, payment of tribute by the Sultan. To levy this tribute, d'Almeida, under the orders of Dom Manuel I, erected a fort in 1505; but this occupation resulted in the ruin of the trade of the port, and the fort was dismantled two years later. The Portuguese took part in a dispute about the succession; and the sheikh who finally succeeded admitted the suzerainty of the King of Portugal. Kilwa, however, never became a centre of Portuguese power. In 1587 it fell into the hands of a tribe from the Zambezi region. The Portuguese held it for a short time from 1728; but the power of the Imāms of Muscat extended to this part of the coast in the early part of the nineteenth century. In 1850 Kilwa became subject to the Sultan of Zanzibar, who ceded it with other territory to Germany in 1890.

Mombasa.—Leaving the group of islands which lies near this part of the coast, the earlier voyagers followed the mainland; and the next place of importance they visited was Mombasa, which, owing to its secure position on an island and the excellence of its port, was a thriving centre with a large trade. The rulers of this place were jealous of Malindi, which was favoured by

¹ See *Mozambique*, No. 121 of this series, p. 29.

the Portuguese, as it had been friendly and had supplied Vasco da Gama with a pilot to Calicut. In 1505 the Viceroy, d'Almeida, demanded acceptance of Portuguese supremacy with payment of tribute. As this was refused Mombasa was stormed and sacked. After some years it recovered some of its former importance owing to its natural advantages; but it was again destroyed by the Portuguese in 1528. Later on, the raids of a tribe from the interior caused the Portuguese great trouble. In 1584 a strong Turkish fleet was fitted out in the Red Sea, and, taking advantage of the apparent disorganization of Portugal since it had come under the rule of a Spanish king, attacked the East African ports. It reached Mombasa, but was finally defeated by a Portuguese fleet under Coutinho. Linschoten¹ says that in 1583 he saw two forts which guarded the harbour; these probably belonged to Arab sheikhs. In 1594, however, the Portuguese built a strong fort, which still exists, and their hold on this part of the coast was for the time being secured. A Governor of Portuguese East Africa was first appointed in 1609, the province having up till then been under the Viceroy or Governor of Goa.

Malindi, Lamu Island, Barāwa, and Mogadishu.—Malindi, Lamu Island, Barāwa (Brava), and Mogadishu are the other places of importance on the east coast to which Portuguese influence extended. Malindi was on friendly terms with the Portuguese from the first, and obtained privileges over its old enemy Mombasa. It also shared in the attack of the Turks in 1584. Lamu, the principal island of the Lamu archipelago, is close to the coast of the Witu Sultanate. It shows traces of Persian influence and possesses a Portuguese fort. Barāwa as well as the neighbouring town of Oja (or Ozi) were sacked by Tristão da Cunha in 1506, as they refused to pay the tribute they were supposed to have promised to Saldanha three years before. Afonso d'Albuquerque took part in this affair. The

¹ *Voyage of Linschoten to the East Indies* (Hakluyt Society, 1885), vol. i, p. 36.

Portuguese never seem to have been strong at the northern port of Mogadishu, and it never seems to have suffered at their hands, but was taken by the Turkish raider Ali Bey in 1586 and held by the Turks for a short time. The rule of Seyyid Said of Muscat was extended to it in 1828.

iv. THE EAST COAST ISLANDS

Before resuming the account of the history of the settlements of the Portuguese in West and East Africa their dealings with the islands on the east coast remain to be considered.

Madagascar.—Madagascar, the largest and most important of these, was discovered or rather re-discovered (for it was known to the Arabs) by Fernão Soares in 1506. He had been driven to the east of the islands by stress of weather. The western coast was first visited later on in the same year by Pereira and d'Abreu on August 10 (St. Lawrence's Day), whence the name of São Lourenço was given to the island by the Portuguese. They made little use of their discovery, as they were disappointed in not finding the valuable spices they hoped for, and Madagascar was never occupied by them.

Zanzibar, Pemba, and Mafia.—The group of islands close to the East African coast, comprising Zanzibar with Pemba to the north and Mafia (or Mamfia) to the south, was, from its position, more important to them. These islands fell under Portuguese control at an early period, as they were easily accessible from Mombasa, and were subject to the payment of tribute. They remained so as long as the Portuguese power continued on the east coast. When it disappeared they fell into the hands of the Imāms of 'Omān, who, after taking possession of Muscat, extended their power in 1698 to the east coast of Africa.

Sokotra.—Sokotra, which occupies a commanding position at the entrance to the Gulf of Aden, was early recognized by the Portuguese as a valuable strategical

point. Two fleets under Tristão d'Acunha and Afonso d'Albuquerque reached the island in 1506, and, after hard fighting, took a fort held by the Arabs of Fartak on the mainland of Arabia. These Arabs had previously ruled the island and oppressed the inhabitants, who still preserved traces of Christianity. The Arab fort was adapted and used by the Portuguese, who found the island of great use as a supply depot for their fleets in operating against the Egyptians and Turks, more especially as d'Albuquerque and his successors did not succeed in taking Aden.

V. PORTUGUESE CONTROL OF THE INDIAN OCEAN

By the middle of the sixteenth century the Portuguese were the paramount power along the east coast of Africa. They were firmly established in possession of the key-points in India, Persia, and Arabia, which gave them control over the trade towards Europe. In India they had a strong centre at Goa and the island fort of Diu, which the Turks had in vain attempted to take. In the Persian Gulf the whole trade was concentrated in the fortified island of Hormuz, which they held; and Muscat gave them control over the adjoining coast of Arabia.

Portuguese Settlements in India.—The Portuguese settlements in India were the most important part of the original scheme for obtaining control of the eastern trade. After Vasco da Gama's first successful journey to Calicut a series of expeditions followed under Pedro Alvares Cabral (1500), João da Nova (1501–2), and Francisco and Afonso d'Albuquerque (1503). These voyages were entirely concerned with the most southerly part of the coast of western India, generally known as Malabar, then comprising the Hindu kingdom of Calicut, which maintained close relations with the Mohammedan traders from East Africa, and the subordinate kingdoms of Cochin and Cananor.

Behind these coast principalities lay the great Hindu Empire of Vijayanagar, which itself extended

to the coast farther north, and held the ports of Honor and Bhatkal. North of this again came two out of the five Mussulman States which had been formed from the decaying Bahmani kingdom of the Deccan. The most southerly of these, the Ādilshāhī kingdom of Bijapur, held Goa and the coast north of it (including Dābhol), while the more northerly, the Nizamshāhī kingdom of Ahmadnagar, possessed only a short extent of coast; but this included Chāul, then one of the most famous ports in western India. Bombay, a short distance north of Chāul, was as yet but an obscure fishing village; but Thāna and Bassein were important ports, and were included in the powerful Mohammedan kingdom of Gujarāt. The great trading centre of Cambaya or Cambay, the name of which was famous throughout Arabia and East Africa, also belonged to Gujarāt, as did the peninsula of Kathiāwār, including the island port of Diu.

It soon became clear to King Manuel I and his advisers that, if the Portuguese, relying entirely upon sea-power, were to maintain themselves in the Indian Ocean, which was surrounded by powerful military monarchies, the possession of certain strong points where their fleets could refit and obtain supplies was an absolute necessity. In Malabar they were opposed by the Raja of Calicut, who feared to lose the profits derived from the Arab traders; but the lesser chiefs of Cochin and Cananor received them gladly, hoping to get their support against their powerful rival. Hence Cochin and Cananor, followed shortly after by Quilon, became the first Portuguese factories on this coast, and a fort was founded at Cochin.

D'Almeida.—In 1505, however, Francisco d'Almeida was appointed to the important post of Viceroy. He was accompanied by his son Lourenço, who had already distinguished himself in East Africa at Kilwa and Mombasa, and who soon added to his fame by the first Portuguese landing in Ceylon in 1505. D'Almeida showed great energy in prosecuting exploration along the west coast of India as far north as the

Gujarāt ports ; but he did not permanently occupy any port, so that the Portuguese fleets could only use the ports by arrangement with the land powers.

All the Mussulman powers were hostile to them, and the ruler of Calicut bitterly resented the encroachments on his land-power and sea-trade. All looked for assistance to the powerful Mamlūk Sultans of Egypt, who were in possession of the Red Sea and its harbours, and who alone were able to muster a sea force capable of grappling with that of Portugal. Behind Egypt stood the vast power of the Ottoman Turks, under the great conqueror Selim 'the Grim'. But Turkey had not as yet obtained a footing on the Indian Ocean. The newly organized power of Persia under the Shi'a sovereign, Shāh Ismā'il, barred her way to the Persian Gulf, as Egypt did that to the Red Sea. The entrance to the Red Sea was held by the trading State of Hormuz, which controlled the straits and the adjoining coasts and islands of Persia and Arabia, while the Arabian coast between 'Omān and the Straits of Bāb-el-Mandeb, including Aden, was under its local chiefs.

Egypt alone was free to act ; and its ruler, Kānsū Ghorī, entered into an alliance with the Sultan of Gujarāt, and fitted out a fleet in the Red Sea under a noted Kurdish leader, Mīr Husain. This fleet appeared in Indian waters in 1507, supported by numerous small coasting craft belonging to Gujarāt and Calicut, and probably by some forces of the Ādilshāhīs also. A considerable part of the Portuguese fleet under Lourenço d'Almeida was surprised in the harbour of Chāul and nearly annihilated, the young commander losing his life. His father, the Viceroy, amply revenged the loss in the beginning of 1509 by severely defeating the combined Egyptian and Gujarāt fleet at Diu, and driving the remnant back into the Red Sea.

D'Albuquerque.—Meanwhile d'Almeida's tenure of office was drawing to an end. His successor as Governor (though without the title of Viceroy), Afonso d'Albuquerque, had accompanied Tristão da Cunha in the expedition to Sokotra above alluded to, and now

proceeded to carry out the instructions of the King, which were to secure Portuguese power by taking possession of strong central positions, especially Aden and Hormuz. It was hoped in this way to control the two great trade routes through the Red Sea and Persian Gulf.

Hormuz was dealt with first, and in 1507-8 d'Albuquerque, starting from Sokotra, attacked the Arabian ports which were under the power of the island State. Of these the principal were Kalhāt, Sohār, and Muscat, the last of which was now rising into fame and soon after became a centre of Portuguese power. D'Albuquerque was also at first successful in obtaining the submission of the Chief of Hormuz, together with a promise to pay tribute and permission to erect a fort. This was actually begun; but d'Albuquerque's hopes were frustrated by the mutiny and desertion of a large part of his fleet, headed by the Galician, João da Nova, who sailed to India and traduced him to d'Almeida. The latter consequently refused to make over charge to him; and it was not till the arrival of Coutinho, Marshal of Portugal, with imperative orders from the King, that d'Albuquerque was installed as Governor, and d'Almeida sailed for Europe. D'Almeida lost his life on the way in an obscure struggle with Hottentots at Saldanha Bay, a miserable end to a great career. He had always been opposed to the policy of occupying strong land posts, to which d'Albuquerque was committed. This policy the latter was now able to carry out.

Goa.—Before renewing his operations in the Persian Gulf and Red Sea, d'Albuquerque determined to secure a foothold on the Indian mainland; and in 1510, by a sudden assault, seized the important harbour and trade centre of Goa from the Ādilshāhī Sultans. After two months, however, the Ādilshāhī forces recovered the fort, and the Portuguese had to take to their ships, and, unable to cross the bar owing to the monsoon winds, lay in the roadstead suffering great tribulation. In August the fleet got out, and in November, after refitting at Cananor, d'Albuquerque again attacked

and obtained possession of Goa. Peace was soon made with the Sultan; and Portugal, after some initial troubles, retained possession not only of the town and island but of an area on the mainland sufficient to ensure supplies for her fleets. The indefatigable d'Albuquerque immediately fitted out an expedition against Malacca—a very daring exploit. This place was the rendezvous of all the valuable trade of the Spice Islands and of China, the control of which was especially coveted. Malacca was taken and henceforth held as a Portuguese possession.

Last Enterprises of d'Albuquerque.—In 1513 d'Albuquerque determined to gain possession of Aden and the control of the Red Sea trade. A bold attempt to take Aden by escalade was made with insufficient force and failed; an expedition against Jedda, undertaken without knowledge of the climatic conditions, never reached its object, and the crews were reduced by fever in the pestilential island of Kamarān before a change of wind allowed them to escape through the Straits of Bāb-el-Mandeb into the Gulf of Aden. Hormuz, however, now fell finally into d'Albuquerque's hands. His health was failing; but he hurried on the construction of the fort, which was nearly finished by the end of 1515, and still stands—almost perfect—on a deserted island, a noteworthy monument of the days of Portuguese greatness. D'Albuquerque sailed from Goa at the end of the year and died before reaching the port, thus escaping the humiliation of supersession by a worthless successor. His enemies had at last gained the King's ears, and had induced him to send out Lopo Soares d'Albergaria to replace him.

In spite of the failure to take Aden, the Portuguese position in the Indian Ocean was now so strong that the Turkish Sultan Selim, although he struck a severe blow at Persia at the battle of Chaldirān in 1514 and conquered Egypt in 1517, found himself unable to carry out his plans of further conquest in the East. It was not till twenty years later that his successor, Suleiman, was able to renew the attempt.

vi. EXTENSION OF PORTUGUESE POWER IN THE EAST

Under the impulse given by d'Albuquerque, the Portuguese now rapidly extended their explorations and annexations in the eastern seas. The eastern as well as the western coast of Continental India was brought into their sphere, and their settlements soon extended to the coast of China, to Bantang in the Malacca Straits, to Timor, and to Ternate in the much-valued Moluccas.

The Moluccas.—Here they soon met with rivals, as the Spaniards claimed that the meridian of partition 360 leagues west of the Cape Verde Islands, as laid down in the Treaty of Tordesillas in 1494, would, if extended to the Eastern Hemisphere, bring these coveted islands within the Spanish sphere. The circumnavigation of the globe by the Spanish expedition commanded by the Portuguese Magalhães led to a Spanish settlement in 1522 on the island of Tidore near Ternate, and a long struggle began. The Treaty of Tordesillas was revised by the Junta of Badajoz in 1524, by which the Moluccas were (on defective geographical information) awarded to Spain. Portugal accepted the decision, and bought out the Spanish claims. In spite of this it was many years before the fighting came to an end and Portugal was left in possession.

The Persian Gulf.—Although all expeditions into the Red Sea ended in failure, as in 1520 and 1541, the erection of a fort at Muscat and attacks on Shehir ensured the mastery of the Arabian coast outside that sea, and the Bahrein expedition in 1521 added to the strength of the Portuguese in the Persian Gulf. This was of the greatest importance in view of the growing strength of Turkey. The capture of Basra and Baghdad brought Suleiman's frontier down to the head of the Persian Gulf in 1535, and rendered it possible for the Turks to launch an armada in those waters. But the Portuguese hold of the Straits of Hormuz was too strong, and Suleiman was obliged to persist, under great difficulties,

in the endeavours initiated by Selim, to build a fleet at Suez.

West Coast of India.—Before these endeavours had borne fruit, the Portuguese, now under Nano da Cunha, an energetic Governor, had strengthened their position on the west coast of India. Chāul had already been fortified in 1521, and in 1534–35 the pressure put upon the kingdom of Gujarāt by Humāyun, the Moghul invader, induced the king to cede Thāna (at the head of the creek on which Bombay afterwards grew up), Bassein, and Dāmān to Portugal, and finally to grant the much-desired right to build a fort on the isle of Diu, which was rapidly carried out.

vii. CONFLICT WITH OTTOMAN TURKS

Turkish Naval Expeditions.—Owing to circumstances which cannot be detailed here the quarrel between Portugal and Gujarāt again broke out, and the latter appealed to Sultan Suleiman at Constantinople. This was the opportunity the latter desired, for he had long formed plans of aggrandizement in India. He sent a strong fleet to co-operate with Gujarāt. It conveyed an army of no less than 20,000 men, including 7,000 Janissaries (an enormous force of trained soldiers for that period), the whole under the command of Suleiman Pasha, a renegade of Greek extraction. Diu underwent a long siege, but was successfully held, and the expedition ended in failure. Differences sprang up between the Turks and Gujarātis, who began to be suspicious of the intentions of their allies. Finally, in 1538, the Turkish fleet retreated, without fighting a pitched battle.

Suleiman, however, did not give up his idea of an Eastern Empire, an indispensable preliminary to which was the expulsion of the Portuguese fleets from the Indian Ocean. The lack of any strong central government in India until Akbar was established on his throne no doubt gave a reasonable prospect of success to a well-organized army, provided, as the Turkish

army was, with the best artillery of the period. In 1550 rumours of preparations at Suez reached the ears of the Portuguese, and an expedition under Luiz Figueira was sent to the Red Sea, but met with no success. At the same time the Turks obtained a footing at El-Katif, the most important point on the Arabian coast of the Red Sea. An expedition under Antonio de Noronha attacked and took this place, driving out the Turkish garrison, and also visited the Shatt el-Arab, hoping to co-operate in a rising at Basra against the Turks. At this time also Aden submitted to the Portuguese and expelled the Turks.

A naval expedition under Piri Bey was then organized at Suez. Issuing from the straits, Piri took Aden by storm, but had to return to the Red Sea. He came out again in 1551-2 and succeeded in taking the town and, after a short siege, the fort of Muscat. He then plundered the island of Kishm; but, not venturing to attack Hormuz, made his way safely to Basra. On his return he encountered a Portuguese fleet in the straits, and escaped to the Red Sea with two galleys only. Piri was beheaded by the Sultan for his failure. The rest of the fleet had been abandoned at Basra, where (after refitting) another attempt was made under Murād Bey, who was defeated in the Straits of Hormuz, many ships being destroyed, and the remainder returning to Basra.

A third attempt was made under a celebrated sea-captain, Sidi Ali, 'Kapudān' of Egypt, well known by his work *Mohit*, or 'The Ocean', a survey of the coasts of the Indian Ocean. He went overland to Basra with the object of getting the fleet out of the Persian Gulf and bringing it round to the Red Sea. He put to sea during the monsoon (August, 1554) and got through the Straits of Hormuz, but returned to the Gulf after a severe and, as he claimed, victorious fight with the Portuguese fleet. Coming out again, he met the fleet under Fernando de Noronha, and after a severe battle off Muscat, in which he had great losses, being evidently unable to force a passage to the Red Sea.

tried to make his way eastwards. Sīdī Alī himself compares this battle to the celebrated naval combat of Prevesa (1538), in which he had himself taken part.

Sīdī Alī coasted along Makran, but was driven backwards and forwards by the monsoon gales, and finally found himself off the Indian coast, where he narrowly escaped shipwreck. He was allowed to land at Sūrat in Gujarāt after losing two ships, but was there blockaded by the Portuguese fleet, and finally had to abandon his ships and make his way back to Turkey overland. Ultimately, after long journeys through Kābul and Central Asia, he reached Turkey towards the end of 1556.

No further attempts were made during the life of Sultan Suleiman to contest the Portuguese maritime supremacy. The raid on the eastern African ports made by Ali Bey (1584–9), though temporarily successful, was on a small scale.

viii. BRAZIL

Thus, when Portugal passed under the rule of Philip II of Spain in 1580, her control of the eastern seas was practically unchallenged. It was by her subjection to Spanish rule that she was involved in the struggle which led to the destruction of her power. From the beginning of the sixteenth century the attention of the Portuguese Government had been divided between east and west. Brazil, accidentally discovered by Pedro Alvares Cabral in 1500 on his way to India, was admitted to belong to Portugal from the mouths of the Amazon to the Rio de la Plata. It fell on the Portuguese side of the meridian laid down by the Treaty of Tordesillas, and Spain did not contest the claim. Little attempt was made to colonize or explore the country, as it seemed to offer no gold or other valuable products. At first only bands of convicts and bad characters were sent out; but colonization in earnest began in 1530; and a Governor (Martin Afonso de Sousa) was appointed for the first time in 1531. Settlers in large numbers went out throughout the

sixteenth century. Sugar cultivation was introduced in 1548, and negro slaves began to be imported from Guinea. The settlement of Angola seems from the first to have had an intimate connexion with the demand for slaves in Brazil. Many towns grew up along the coast of Brazil, and the capital was fixed in 1549 at São Salvador on the Bahia de Todas os Santos, generally known as Bahia. Jesuit missions did valuable work in civilizing and protecting the native tribes. Although a futile attempt at French colonization was made in 1555-7, Brazil was not otherwise interfered with in the sixteenth century; and in the seventeenth century, when the Dutch wars broke out, it was a prosperous country with a large Portuguese population.

ix. REVIVAL OF WEST AFRICAN COLONIZATION

In the middle of the sixteenth century, being fairly established in East Africa, India, and Brazil, the Portuguese began to revive projects which had been laid aside owing to the lack of power to deal with them. The principal of these was the settlement of West Africa which centred in Angola.

The Congo Kingdom.—The Kingdom of the Congo, which included territory both north and south of the river, had been colonized and to some extent Christianized by the expedition under Diogo Cão. Paganism, however, had reasserted itself. The invasion of the Jaggas, a savage tribe, threw matters back still further; but the kingdom continued to be nominally Christian, and its capital, São Salvador, was still a place of importance.

Angola.—Angola also appears to have to some extent accepted Christianity. Its king was not always on good terms with the King of the Congo and a dispute between the two arose as to the trade in cowries which were brought from the Indian Ocean and formed a medium of exchange in West Africa. Congo claimed to stop this trade, from which Angola derived a large revenue, and the King of Angola sent a deputation to Lisbon to protest. This led to the dispatch of Paulo

Dias in 1559. He went to the capital of Angola, near the Kwanza River, then to Pungo Ndongo, and after his return was again sent out by the King (Dom Sebastião) as *conquistador* in 1574. He landed on the island of Loanda, which belonged to the Congo chief, and made a treaty with the latter which was observed for some years. The town of São Paulo de Loanda was then founded on the mainland and became the capital of the new colony. A few years later disturbances were provoked by intrigues from the Congo, and for a time the Portuguese were hard pressed ; but Paulo Dias ultimately triumphed over all difficulties, and the colony was fairly established. Dias died in 1588.

X. PERIOD OF DECLINE

After the commencement of the seventeenth century the Portuguese settlements began to feel the effects of the Spanish connexion. They were involved in the Spanish wars with England and Holland, especially the latter. The Dutch, after asserting their independence from Spain, rapidly developed their sea-power, and soon began to aim at settlements of their own on the African and Asiatic coasts, especially after their exclusion from the port of Lisbon by Philip II in 1594. The Portuguese fleets also suffered severely from their participation in Philip's Armada (1588), from Drake's sack of Faro, and from the operations of the English fleets round the Azores, when England took up the cause of Dom Antonio. In Africa the English contented themselves with destroying the fort of Arguin, and concentrated their main efforts on the Indian trade.

The Dutch wars took an aggressive form towards Portugal at the close of the sixteenth century ; and the first infringement of the eastern trade monopoly was the establishment of the Dutch factory in Java in 1597, which led to the founding of Batavia in 1619. Amboina was taken by them in 1605, and the Moluccas (Ternate and Tidore) in 1607. The Spanish-Portuguese fleet was destroyed off the Philippines in 1615 ; Macao was attacked unsuccessfully in 1622 and 1627 ; and in

1637-42 the Portuguese were expelled from Japan, the Dutch, through their willingness to agree to certain degrading conditions, taking their place as the only favoured European nation. The Portuguese settlements in Formosa fell in 1642. Attacks on Ceylon commenced in 1636 with the conclusion of a treaty between the Dutch and the tributary King of Kandy.

The war was continued by the Dutch after the liberation of Portugal from Spain ; for they had determined to utilize their superior sea-power to obtain complete control over the trade of the eastern seas, and aimed at the establishment of a monopoly. The war in Ceylon continued till the last Portuguese fort, Jafnapatam, fell in 1658. On the mainland of India, Negapatam was taken in 1658, Quilon in 1661, Cranganore and Cochin in 1662, and Cananor in 1663. Peace between Holland and Portugal had been signed in 1661 ; but Portugal did not succeed in obtaining the restoration of places surrendered after that date.

Brazil.—Brazil had also felt the storm. Dutch attacks began in 1624 ; but the first important success was the taking of Olinda in 1628. The *Capitanias* of Itamarca and Rio Grande do Norte were occupied in 1633, Parahiba in 1634, Pernambuco in 1635, Siara and Sergipe d'El-rey in 1638. These seven provinces were formed into a dominion under Prince John Maurice of Nassau, who ruled it as Governor from 1637 to 1644, with his capital on the island of Recife. The attack on Bahia in 1638 was, however, a failure ; the southern provinces of Brazil remained under Portuguese rule, and the Portuguese settlers gradually began to win back the conquered territory. In 1640, the year of the Portuguese revolt from Spain, the Governor felt strong enough to send an expedition across the Atlantic to help to expel the Dutch from Angola. In 1648 the Dutch fleet failed to relieve Recife, and with its fall in 1654 the whole of Brazil had been recovered.

Bengal.—The weakening of Portugal by sea and

land during the period of Spanish rule stirred up other enemies eager to profit by her misfortunes. The Moghul Emperor, Shāh Jahān, seized on their trading station at Hugli in Bengal in 1632, and massacred or took captives the Portuguese settled there, thus destroying their Bengal trade at a blow.

East Africa.—The Arabs of 'Omān took Muscat in 1652, and in 1698 were able to seize all the East African stations north of Mozambique.

Mainland of India.—The Mahrattas completed the ruin of Portuguese rule on the mainland of India by taking possession of Chāul in 1740, Bassein in 1739, and Thana in 1737; Goa itself was saved with difficulty. The Portuguese were left by the middle of the eighteenth century with the places they still possess—Goa, Dāmān, and Diu in India; Macao in China, and part of Timor in the Sunda Islands. The remainder of their Eastern dominion had been entirely lost. The English, though at war with Portugal, took no part in despoiling her of her Oriental possessions, save in so far as they assisted the Shah of Persia in the taking of Hormuz in 1622. The transfer to England of Bombay, a city whose importance was only just beginning, was a friendly arrangement made on the marriage of Charles II to Catherine of Braganza. In the Mahratta wars the English often helped the Portuguese to defend their settlements.

Africa.—Dutch ravages in Africa commenced with attacks on the Portuguese settlements in the Gulf of Guinea, especially the Gold Coast, where they established many forts. São Jorge da Mina fell into their hands in 1637, and has since then been known as Elmina.

In 1641, just after the restoration of Portuguese independence and while its permanence was still doubtful, a strong Dutch fleet attacked and took São Paulo de Loanda, and for some years the Dutch were in possession of a great part of Angola. The Portuguese Government at home was unable to send help, but this came in 1648 from an unexpected quarter. In Brazil,

a successful rising in 1645 expelled the Dutch and re-established Portuguese authority. The new Governor, Sotomayor, heard of the plight of Angola and that very year landed a force at the Bay of Quicombo. He was followed in 1648 by S. C. de Sá Benevedes, who recovered São Paulo de Loanda. In three years the Dutch were expelled from the country. But they held on to the island of St. Helena, until it was taken from them by the English in 1673, and, in the same year in which they lost Loanda, made their first settlement at Table Bay, the beginning of European settlement in temperate South Africa.

The extension of the Angola Colony to the south had begun before the Dutch invasion. The Governor, Manoel Silveira Pereira, who had been successful in repelling native raids from the interior, founded the town of São Felipe de Benguella in 1617, and established Portuguese rule as far as Kakonda, in the interior highlands. This was the first move towards the more healthy high country north of the River Kunene, in which the Mossamedes Colony has been formed in modern times. In the eighteenth century an extension was made northwards from Loanda to Ambriz, a port at the mouth of the Loje River, which, up to that time, seems to have been a debatable land between Congo and Angola; and further extensions took place to the south of Benguella. The colony was well organized by Sousa Coutinho, who became governor in 1764; and between 1807 and 1810 many improvements were made by Antonio Saldanha da Gama. Yet, on the whole, a hundred years ago Angola was not progressing; it depended mainly on the slave-trade, and the healthy table-land away from the coast was almost untouched.

Loss of Control over Indian Ocean.—On the east coast of Africa the Dutch made few attacks on the Portuguese, as their colony at the Cape and the island of Mauritius gave them the necessary ports *en route* to India. Their only important enterprise in this quarter was the unsuccessful siege of Mozambique in 1607. They concentrated their efforts on the eastern seas,

on India, and on Brazil. Control over trade disappeared with the loss of the seaports ; but it did not revert to the Mohammedan powers from whom the Portuguese had taken it. The English and Dutch were now too strong to be ousted, and the future of the eastern seas rested with them.

Present Distribution of the East Coast of Africa.—The Portuguese possessions on the east coast of Africa at present are bounded on the north by Cape Delgado and the Rovuma River. Of the places which have been mentioned north of that point, Kilwa, now known as Kilwa Kisiwani (as distinguished from Kilwa Kwinji which lies north of it), is in Kenya (formerly German East Africa); Mombasa, Malindi, and Lamu Island are in British East Africa, and Barāwa and Mogadishu in the Italian Protectorate.

The colonies of Angola and Mozambique remain under Portuguese rule.

xi. CONCLUSION

By the middle of the eighteenth century, then, the Eastern dominions of Portugal had been reduced to these few fragments. Guinea also was lost, while in Africa the Angola and Mozambique coasts were the only valuable territories left, and their value was as yet undeveloped. Brazil, on the other hand, had come successfully through its troubles, and became the principal support of the home Government. Its prosperity increased ; and in 1763 Rio de Janeiro, with its magnificent harbour, became the capital instead of the more tropical port of Bahia. The effect of Pombal's measures of reform it is impossible to discuss here ; but it may be noted that his intention to enforce the laws raising the Indians to an equality with the Portuguese ended in failure, as the abolition of the Jesuits and the destruction of the Mission *aldeas* (village settlements) generally removed their principal protectors. The removal of the Braganza Court to Brazil in 1808 and the final separation from the mother country in 1822 need only be mentioned here. Although under separate

Governments, the two countries, Portugal and Brazil, are animated by a strong feeling of racial unity, and both are now republican.

Portugal now possesses certain very valuable regions in Africa and three groups of islands in the Atlantic which, under present conditions, have enormous value. The part played by the Azores in recent naval arrangements is an example of this. In the vast schemes of annexation formed by the dominant party in Germany these islands were marked down as necessary for the realization of German projects, and Angola and northern Mozambique were included in the 'Mittel-Afrika' scheme for two reasons: first, because they form part of the tropical belt of Africa which it was necessary to secure to give Germany a monopoly of the most valuable tropical products, and secondly, because on the plateau-land of Angola there is a region suitable for settlement of white colonists. The completion of the Benguela railway to Katanga, where it will connect with the systems of Rhodesia and the Congo State, should lead to great developments on the Portuguese side of the frontier.

AUTHORITIES

[Only general works dealing with the whole subject are given in this section. For detailed information see the lists in the handbooks dealing with each colony.]

- ALMADA NEGREIROS, A. L. DE. *Les Colonies portugaises*. Paris. [1908.]
- ANDRADE CORVO, J. DE. *Estudos sobre as provincias ultramarinas*. 4 vols. Lisbon, 1883-8.
- Anuario colonial*. Lisbon, 1916. (An official publication with maps and statistics of the Colonies.)
- AZURARA, G. E. *Discovery and Conquest of Guinea*. Translated from the original of 1453 and edited with an introduction by E. Prestage and C. R. Beazley. 2 vols. Hakluyt Society, 1898. (The introduction deals with the whole subject of early Portuguese explorations.)
- CAMPOS, J. J. A. *History of the Portuguese in Bengal*. Calcutta and London, 1919.
- CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portuguezas*. 2nd ed. Lisbon, 1903.
- DANVERS, F. C. *The Portuguese in India*. 2 vols. London, 1894.
- ✓ EGERTON, H. E. *Transference of Colonial Power*. (Cambridge Modern History, vol. vi, 1906.)
- HERTSLET, SIR E. *The Map of Africa by Treaty*. 3 vols. and Atlas. 2nd ed. London, 1909.
- JAYNE, K. G. *Vasco da Gama and his Successors*. London, 1910. (Gives a very full bibliography.)
- JOHNSTON, SIR H. H. *The Colonization of Africa by Alien Races*. Cambridge, 1913.
- KELTIE, SIR J. S. *The Partition of Africa*. 2nd ed. London, 1899.
- MAJOR, R. H. *The Discoveries of Prince Henry the Navigator*. 2nd ed. London, 1877.
- MARVAUD, A. *Le Portugal et ses Colonies*. Paris, 1912.
- OLIVEIRA MARTINS, J. P. *O Brazil e as Colonias*. Lisbon, 1904.
- *Portugal em Africa*. Oporto, 1891.
- *Portugal nos Mares*. Lisbon, 1889.
- RIBEIRO, J. *Fatalidade Historica da Ilha de Ceilão (1685)*. Noticias hist. e geog. das Nações Ultramarinas. Tomo v. Lisbon, 1836.

- SOUTHEY, R. *History of Brazil*. 3 vols. London, 1810-19.
- STEPHENS, H. MORSE. *Portugal*. (Story of the Nations.)
2nd ed. London, 1903.
- STRANDES, J. *Die Portugiesenzeit von Deutsch- und Englisch
Ostafrika*. Berlin, 1899.
- THEAL, G. MCCALL. *History and Ethnography of South Africa*.
3 vols. London, 1907-10.
- WHITEWAY, R. S. *Rise of the Portuguese Power in India,
1497-1550*. London, 1899.
- YOUNG, E. *Portugal Old and Young*. Oxford, 1917.
- ZIMMERMANN, A. *Die europäischen Kolonien*. Berlin, 1899.

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AZORES AND MADEIRA

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TABLE OF CONTENTS

I. GEOGRAPHY PHYSICAL AND POLITICAL	PAGE
<i>AZORES</i>	
(1) Position and Area	1
(2) Surface and Coasts	1
(3) Climate	5
(4) Sanitary Conditions	6
(5) Race and Language	7
(6) Population	
Distribution	7
Towns and Villages	8
Movement	8
<i>MADEIRA</i>	
(1) Position and Area	9
(2) Surface, Coasts, and River System	9
(3) Climate	12
(4) Sanitary Conditions	13
(5) Race and Language	13
(6) Population	
Distribution	13
Towns and Villages	14
Movement	14
II. POLITICAL HISTORY	
Chronological Summary	15
<i>AZORES</i>	
Discovery	15
Flemish Settlers	16
Fighting with Spain	17
Van Linschoten as Historian	17
The Islands in the Nineteenth Century	18
<i>MADEIRA</i>	
Discovery	19
Settlement and Colonization	20
Privileged Position of the British	21
Occupations by the British	22
III. SOCIAL AND POLITICAL CONDITIONS	
(1) Religious	23
(2) Political	23

TABLE OF CONTENTS

[No. 116]

IV. ECONOMIC CONDITIONS

PAGE

AZORES

(A) MEANS OF COMMUNICATION

(1) Internal

(a) Roads and Tracks 24

(b) Posts and Telegraphs 24

(2) External

(a) Ports 24

(b) Shipping Lines 25

(c) Cable and Wireless Communica-
tions 26

(B) INDUSTRY

(1) Labour 26

(2) Agriculture

(a) Products of Commercial Value

Vegetable Products 27

Live-stock 28

(b) Methods of Cultivation 29

(c) Forestry 29

(d) Land Tenure 29

(3) Fisheries 29

(4) Minerals 30

(5) Manufactures 31

(C) COMMERCE

(1) Domestic

(a) Organizations to promote Trade
and Commerce 31

(b) Foreign Interests 31

(2) Foreign

(a) Exports

Quantities and Values 32

Countries of Destination 33

(b) Imports

Quantities and Values 33

Countries of Origin 34

(D) FINANCE

(1) Public Finance 36

(2) Currency 36

(3) Banking 36

(E) GENERAL REMARKS 36

MADEIRA

(A) MEANS OF COMMUNICATION

(1) Internal

(a) Roads and Tracks 37

(b) Rivers and Canals 38

(c) Railway 38

(d) Posts and Telegraphs 38

TABLE OF CONTENTS

(2) External	PAGE
(a) Ports	38
(b) Shipping Lines	39
(c) Cable and Wireless Communica- tions	41
(B) INDUSTRY	
(1) Labour	41
(2) Agriculture	
(a) Products of Commercial Value	
Vegetable Products	42
Live-stock	46
(b) Methods of Cultivation	47
(c) Forestry	48
(d) Land Tenure	48
(3) Fisheries	49
(4) Minerals	50
(5) Manufactures	50
(6) Power	52
(C) COMMERCE	
(1) Domestic	
(a) Principal Branches of Trade	53
(b) Organizations to promote Trade and Commerce	53
(c) Foreign Interests	53
(d) Methods of Economic Penetration	54
(2) Foreign	
(a) Exports	
Quantities and Values	55
Countries of Destination	56
(b) Imports	
Quantities and Values	56
Countries of Origin	57
(c) Customs and Tariffs	58
(D) FINANCE	
(1) Public Finance	59
(2) Currency	59
(3) Banking	59
(4) Influence of Foreign Capital	59
(5) Principal Fields of Investment	59
(E) GENERAL REMARKS	60
AUTHORITIES	61

I. GEOGRAPHY PHYSICAL AND POLITICAL

THESE two groups of islands lie in the Atlantic, the Azores in the latitude of Portugal, and the Madeira group off the coast of Africa. They belong to Portugal, and are treated as parts of the mother-country.

AZORES

(1) POSITION AND AREA

The Azores (Portuguese, *Açores*) lie between $36^{\circ} 59'$ and $39^{\circ} 44'$ north latitude and $24^{\circ} 45'$ and $31^{\circ} 16'$ west longitude. Their aggregate area is 922 square miles. The largest island, San Miguel, is 700 miles from the coast of Portugal and about 750 miles from Cape Cantin in Africa, and the islands lie in an advantageous position on many of the great trade routes.

(2) SURFACE AND COASTS

The islands lie in a line which runs about north-west and south-east. They constitute three groups, of which the westernmost consists of Corvo and Flores, the central of Fayal, Pico, San Jorge (St. George), Graciosa and Terceira, and the easternmost of San Miguel (St. Michael) and Santa Maria (St. Mary), with the rocky group of the Formigas. The archipelago is volcanic in origin, the only island which shows no signs of volcanic activity being Santa Maria. The volcanic material decomposes rapidly, and the soil is fertile. There is very little level ground, and there are numerous craters, many of which contain lakes—sometimes, as in the case of Sete Cidades in San Miguel, more than one. There are many mineral springs. The sea coasts are as

a rule high and abrupt, and caves are common; in the Caldeira on Graciosa is a very remarkable cave of vast dimensions.

Corvo, which is the northernmost and the smallest of the nine islands, has an area of seven square miles, and is separated from Flores by a strait 10 miles in width. It consists of a single extinct volcano (2,548 ft.) with short elongations to north and south; the crater, which is $3\frac{1}{4}$ miles in circumference, occupies all the north-west of the island. The bottom of the crater contains two lagoons, on which there are islands with pasture for numerous cattle and sheep. The west coast has no indentations, but the east forms a gentle curve, with almost inaccessible cliffs. On a bay on the east coast is the fishing village of Rosario.

Flores has an area of 57 square miles, and is the most westerly of the Azores. The whole island is very mountainous, but it is fertile and much cultivated, and owes its name to the beauty of the flowers that abound on it. Flores has plenty of timber and is well watered, containing seven lakes and a great number of streams. The latter unite to form the Ribeira Grande, a stream which often causes inundations, especially near its mouth at Fajasinha. The highest summit is Morro Grande (3,087 ft.) in the north-west, and the south of the island is occupied by mountains averaging about 2,000 ft. in height, down the slopes of which numerous cascades fall into the sea.

The east coast is the most indented and has several anchorages.

Fayal has an area of 64 square miles. It is mountainous and wooded, and the centre of the island is occupied by Pico Garda (3,351 ft.), where the crater of an extinct volcano encloses a considerable lake. There are also several small volcanic mountains in the north-west of the island. Fayal is very fertile, although the water

supply is deficient; the pasture land is excellent. The coast is precipitous; the lowest part of it is along the south of the island, west of Gina Point.

Pico is separated from *Fayal* by a strait less than 4 miles wide, and has an area of 175 square miles. The name of the island is derived from the volcano in the south-west of the island, *O Pico* (7,613 ft.), the highest summit of the Azores, which is still active. Between this and the eastern extremity of the island rises a range with many peaks of over 2,000 ft., and one, *Pico Topo*, of 5,357 ft. The lagoon of *Lagens* is connected with the sea at high water. The coast is steep, the eastern part of the north coast being somewhat higher and more precipitous than the rest; there are no harbours, but there are several coves where small craft can find anchorage, and passengers and goods can be landed in fine weather. The north side of the island is well wooded; on the south and west a great part of the surface is covered by streams of lava.

San Jorge has an area of 40 square miles. It is a long, narrow island, separated from *Pico* by a deep channel, 10 miles wide. Along it runs a range of volcanic mountains, the highest being near the centre and rising to a height of 3,498 ft. The north-western extremity of the island is sharp and pointed and the coast in general is precipitous. Wood and water abound, and there is much pasturage on the island.

Graciosa has an area of 17 square miles, and lies 23 miles north of *San Jorge*. It is one of the least mountainous and wooded of the Azores; its highest hill (1,349 ft.) is at the south-east extremity. The coast is on the whole high and rocky. Near *Praia*, in the south-east of the island, is the *Caldeira*, which is the crater of an extinct volcano and contains a large lake; near it is a great cave, the *Furna do Enxofre*. *Graciosa* is perhaps the most fertile of the Azores.

Terceira, the most central of the islands, has an area of 223 square miles. It has suffered much from earthquakes and volcanic eruptions. The interior is generally mountainous, and the highest summit, the Caldeira de Santa Barbara (3,500 ft.), occupies the extreme west of the island; in the south-east there is a high and almost circular plateau over three miles in diameter, surrounded by high mountains, which was once the crater of a volcano. The island is very fertile. The coast is high and surrounded by rocks, and has many small bights; there are also two more considerable bays, Angra Bay, in the centre of the southern shore, and Praia Bay at the east end.

San Miguel is the largest and most important of the Azores, and has an area of 297 square miles. Its narrowest part lies just to the east of the chief town, Ponta Delgada. The island is mountainous and full of volcanic cones; the only level ground is the high heathery plateau called Achada das Furnas, lying between Maia and the thermal station of Furnas. In the north the land slopes gradually to the sea; east, south, and west it is more precipitous. The eastern part of the island is the highest, being occupied by mountains with an average altitude of more than 2,000 ft., of which the highest are Pico da Vara (3,569 ft.) and Serra de Agua de Pão. In the west of the island the highest point is Pico da Cruz (2,777 ft). North of it, at Sete Cidades, is Lagoa Grande, a considerable lake with a depth of 14 fathoms, separated by a causeway from Lagoa Pequena. There are many other lakes in San Miguel, which is also full of mineral springs. It has been more subject to recent volcanic activity than any other of the Azores. There are several bays, but few are inhabited; most of the population is concentrated on the southern side of the island.

Santa Maria, the easternmost of the islands, has an

area of 42 square miles. It is the least volcanic of the group, and has none of the lake-bearing craters that are characteristic of the other islands. A range of hills, of which the highest is Pico Alto (1,870 ft.), rises abruptly from the south-east extremity of the island and terminates at its northernmost point. Between it and the west coast, where the cliffs are about 100 ft. high, is a plain of two or more miles in width. The coast is abrupt and precipitous. The chief harbours are those of San Lourenço in the north-east and Villa do Porto in the south-west. Although the climate is drier than that of the rest of the group and there are sometimes droughts, the island is usually fertile.

The *Formigas* are a group of black rocks about 24 miles north-east of Santa Maria. The most elevated is called Hormigon.

(3) CLIMATE

The climate of the Azores, which differs considerably from that of Portugal, partly owing to the oceanic position of the islands, and partly to the influence of the trade winds, is extremely temperate and uniform, the difference between winter and summer being comparatively slight. During five years (1896-1900) the minimum winter temperature was 41° F. (5° C.), the maximum summer temperature 82° F. (28° C.). There is not much difference between the various islands, but the eastern group is drier than the central and western.

In summer the Azores lie within the northern boundary of the north-east trade winds; in winter south-west and west winds prevail, and stormy days are especially numerous. Continuous fine weather can only be expected between the middle of June and the end of September, when the climate is usually very agreeable. The winters are generally unpleasantly wet.

Snow is rare and only lies for any length of time on the summit of Pico.

The average temperature for the year at Ponta Delgada (alt. 73 ft.) is 62.6° F. (17° C.); the month with the maximum average is August with 71.6° F. (22° C.), the months with the minimum, January to March with 55.4° F. (13° C.). At Angra (alt. 146 ft.) the mean temperature for the year is 62.6° F. (17° C.); the month with the maximum average is August with 69.8° F. (21° C.), the month with the minimum, February with 55.4° F. (13° C.). At Horta the mean temperature for the year is 62.6° F. (17° C.); the month with the maximum average is August with 71.6° F. (22° C.), the month with the minimum is February with 57.2° F. (14° C.). The rainfall is less evenly distributed. At Ponta Delgada, where there are 171 rain-days, the average rainfall for the year is 35.4 ins. (89.9 cm.). November is the wettest month with an average of 4.36 ins. (11.07 cm.), July the driest with an average of 0.87 ins. (2.2 cm.). At Angra the rainfall for the year is 42.4 ins. (107.69 cm.), and November is the wettest month, with an average of 5.44 ins. (13.81 cm.), July the driest, with an average of 1.18 ins. (2.99 cm.). At Horta the rainfall for the year is 45.54 ins. (115.67 cm.), and the wettest month is December, with an average of 5.12 ins. (13 cm.), the driest April, with an average of 2.04 ins. (5.18 cm.).

(4) SANITARY CONDITIONS

The Azores are healthy, and such disease as there is arises rather from the dirty condition of the towns than from the climate.

Of the various islands Santa Maria is healthy owing to the dryness of its climate; San Miguel is especially suited for invalids, and the mineral waters of Furnas are

beneficial to rheumatic patients and to sufferers from skin and throat diseases. Pico is especially suitable for consumptive invalids, and Fayal, which is damper than Pico, has a mild climate and is free from diseases that arise from climatic causes. The climate of Terceira is remarkably mild and enervating, but it is not unhealthy.

(5) RACE AND LANGUAGE

The inhabitants are for the most part of Portuguese origin, but there is a certain admixture of Moorish and Flemish blood. The Flemish strain dates from the fifteenth century, when Fayal was attached to the Duchy of Burgundy, and its presence among the islanders may be partially responsible for the fact that they are specially active and enterprising.

There are a certain number of negroes and mulattoes, and in the port towns are a number of British, Germans, Americans and Brazilians. The Germans are found especially at Horta. The Americans are largely engaged in whale-fishing. The number of foreign residents in 1900 was 1,490.

The language is Portuguese, but a good number of the inhabitants of Fayal, owing to their association with America, speak English with fluency.

(6) POPULATION

Distribution

The census of 1911 gives the population of the Azores as 243,378, which means that the density is about 264 per square mile. The estimates given of the population and its density in the different islands vary considerably, but the most trustworthy seem to be as follows:—

	Population	Density per square mile
Corvo	746	106
Flores	7,233	127
Fayal	20,461	319
Pico	21,966	125
San Jorge	14,309	357
Graciosa	7,747	455
Terceira	48,029	215
San Miguel	116,619	392
Santa Maria	6,268	149

Towns and Villages

There are only three towns in the Azores which have more than 3,000 inhabitants, viz. Ponta Delgada in San Miguel, Angra in Terceira, and Horta in Fayal.

Ponta Delgada (population 17,620 in 1900) is a flourishing town containing various factories.

Angra (10,788 in 1900), in full *Angra do Heroismo*, is the capital of the Azores and the seat of a bishopric.

Horta (6,574) is the headquarters of the whale-fishing of these parts and an important telegraph centre, but owes its chief importance to the fact that it is a place of call for ships bound to the West Indies.

The chief towns on San Miguel, after Ponta Delgada, are Ribeira Grande, Villa Franca do Campo, Furnas, Alagoa and Capellas. Pico contains a larger number of towns than any island save San Miguel, but none of importance. The other important towns in the islands are Villa de Vellas and Ribeira Sera in San Jorge, Guadalupe and Santa Cruz in Graciosa, Santa Cruz in Flores, Villa do Porto in Santa Maria, and Rosario in Corvo.

Movement

The population of the Azores fluctuates, but shows no marked tendency either to increase or decrease. The figures of four recent censuses are: 1881, 269,401; 1890, 255,534; 1900, 255,892; 1911, 243,378. The decrease visible in these numbers is due more to

emigration than to any other cause. The birth-rate is high, the mortality not abnormally heavy, families are large and the health conditions, generally speaking, good. In several of the islands, however, the women largely outnumber the men, because of the emigration of the more enterprising of the latter.

MADEIRA

(1) POSITION AND AREA

Madeira lies between $32^{\circ} 37'$ and $32^{\circ} 49'$ north latitude and $16^{\circ} 39'$ and $17^{\circ} 16'$ west longitude. It has an area of 314 square miles. With it are included the other islands of the group, Porto Santo, 23 miles to the north-east, and the Desertas, 11 miles to the south-east; also the Selvagens, which lie about 156 miles from Madeira, between it and the Canaries.

(2) SURFACE, COASTS, AND RIVER SYSTEM

Madeira is about 90 miles in circumference. Its extreme length, from Ponta do Pargo to San Lourenço, is 38 miles, and its extreme width, from Ponta de San Jorge to Ponta da Cruz, nearly 15. It is of volcanic origin, but there are only three real craters in the island, the Lagoa at Santo Antonio da Serra, the double crater of Fanal, and the Lagoa of Porto Moniz. A range of mountains runs from west to east across the island, the highest peak of which, Pico Ruivo, is 6,056 ft. high, while several more rise above 5,000 ft. From this range there are branch ridges that run north and south, parted by deep ravines, which break up the country and make communication difficult. High passes cross the main ridge, two of the most important being Portella (1,800 ft.) and Lamaceiros (2,380 ft.) in the eastern part of the island. On the whole the north side of the principal range is abrupt, and the south side slopes more gently,

to the sea. There is only one considerable piece of level ground, the Paul da Serra, towards the west, a swampy plateau with an elevation of 5,000 ft. and on most sides a steep escarpment. The volcanic soil is very fertile, though there is little cultivation above the 3,000 ft. limit.

The sea round Madeira is very deep, and the shores as a rule are steep, with the exception of occasional small beaches. The north coast has a peculiarly bold and precipitous line of cliffs with a sheer drop of nearly 2,000 ft., but the loftiest cliff of all, Cape Girão, is on the south coast. Funchal Bay, at the head of which is the port of Funchal, is about $5\frac{1}{2}$ miles wide, but penetrates the island very little. Camara de Lobos, farther west, affords an excellent harbour for fishing boats. At the east end of the island is the promontory of San Lourenço, a narrow, irregular, rocky peninsula about a mile long; a dangerous channel, about two hundred yards wide, parts it from Fora Island.

There are no considerable rivers in the island, but a large number of small streams run north and south from the principal mountain range, some of which, like the Metade, flow through precipitous gorges of extreme beauty. They are liable to flood.

Porto Santo is seven miles long, and runs north-east and south-west; its mean breadth is $2\frac{1}{2}$ miles and it is 19 miles in circumference. The north-east part contains many considerable hills, the highest of which is Pico da Facho (1,665 ft.). The central portion is lower, and contains many sandy plains, gradually sloping towards the south and south-east, where a sandy beach forms the entire shore, while the south-west extremity is elevated and rocky, with hills that rise to a height of 900 ft. The north point of the island is a bold promontory, and the north coast generally is characterised by high rocky cliffs, for the most part inaccessible. Timber and water are scarce. The chief

town is Villa Baleira on Porto Santo Bay, where there is a harbour, satisfactory in settled weather. Off Calheta Point to the south-west is Baixo Island.

The *Desertas* are three uninhabited islands extending in a chain about 14 miles long, which are occasionally visited by fishermen, herdsmen and sportsmen. The northernmost, Chão, is bare, table-topped, and surrounded by high rocky cliffs; it is a mile long and a quarter of a mile wide at its northern extremity, and rises to a height of 340 ft. To the north is the Sail Rock, 160 ft. high. Parted from it by a very narrow strait is Deserta Grande, seven miles long and one mile broad at Bedegal Point, its widest part. From the high land in the interior a continuous rocky chain runs to the southern extremity, the greatest height being 1,600 ft. North of this is a double ridge with an extensive valley between. The southernmost island, Bugio, is four miles long and nowhere more than half a mile wide. A ridge traverses the whole length of the island, which in form is almost like two islands. On the eastern side there is a bight which penetrates to a depth of half a mile. The greatest height in the northern part of the island is 1,300 ft., in the southern 1,070 ft.

The *Selvagens* (Salvages) are two groups of rocky islands 156 miles from Madeira, distant nine miles from each other. To the north-east is the island of Great Salvage, three miles in circumference, with several small islets and rocks scattered round it; the other group, to the south-west, is formed by the Pitons, two small islands, respectively three miles and three-quarters of a mile long. Both groups are uninhabited, and except for some green on the south side of Great Piton are apparently bare.

(3) CLIMATE

Madeira enjoys a peculiarly mild and equable climate, and on this account the south coast has become a great resort for invalids, especially during the winter, although it is not uncomfortably hot during the summer. The other coast is exposed to the prevalent winds from the north, and is unpleasant during the winter months by reason of its excessive damp. Madeira is too far north for the full effect of the trade wind to be felt; the north-east is the prevalent wind, and is said to blow for 200 days in the year. The *leste* (north-east to south-east) sometimes blows from the Sahara, bringing a red dust, but this wind never lasts more than ten hours.

The temperature is very equable, and at Funchal the annual mean is 64.4° F. (18° C.). In January the average is 59° F. (15° C.), in April 62.6° F. (17° C.), in July 71.6° F. (22° C.), and in October 68° F. (20° C.). The hottest month is generally August, but the temperature varies considerably in accordance with the height and aspect of the locality. During an observation of 25 years the extremes noted have been 89.6° F. (32° C.) and 42.8° F. (6° C.).

The average rainfall in Funchal is 27 ins. (68 cm.), and there are 79 rain-days in the year. Most of the rain falls between November and March, the wettest month being December, while the driest is August. A good deal of the exceptional fertility of Madeira is due to the frequent presence of clouds round the mountain tops, which screen the island from the sun during the day. Snow falls during the winter as low as 2,500 ft. on the north side, and 3,000 ft. on the south side of the island, but it seldom lies for any length of time below 5,500 ft. Most snow falls in March, when the wind is often in the north-west.

(4) SANITARY CONDITIONS

Funchal has become a noted health resort, and the advantages of its climate and situation are increased by the fact that there is little dust, owing to the scarcity of wheeled vehicles. The natives enjoy good health, and the fact that in personal cleanliness they compare favourably with the inhabitants of the Canaries reduces their liability to disease.

Of recent years leprosy has been observed, especially in the west of the island, and septic pneumonia appeared at Santo Antonio in 1907. In 1906 there was a severe epidemic of smallpox.

(5) RACE AND LANGUAGE

Most of the inhabitants are of Portuguese origin, but in the lower strata of the population there are strains of other peoples, including Jews, Moors, negroes and Italians. On the west coast and in the Gran Curral the peasantry retain much of the Moorish type, while in the north negro characteristics are prevalent. The negro strain has come from the slaves imported from Africa. Since the abolition of slavery (1775), the freed negroes have intermarried with natives of European descent; hence come the prevailing dark complexions and certain peculiarities of custom in the island. The Moorish blood is the result largely of piratical raids. There is a certain strain of Flemish blood, dating from the early (Burgundian) period of colonization, but it is less marked than in the Azores.

The language of Madeira is Portuguese, but English is much spoken in Funchal.

(6) POPULATION

Distribution

In 1914 the population of Madeira was 168,374, which gives a density of about 536 to the square mile.

In Porto Santo the population was 2,311, of whom about 1,800 inhabited the town of Villa Baleira. Funchal and its environs account for nearly one-third of the population of Madeira; the rest of the inhabitants are mostly found along the coast, especially in the south.

Towns and Villages

Funchal had in 1911 a population of 25,800. With its environs it has slightly over 50,000 inhabitants, which makes it the third largest city of Portugal. It is an important coaling station and port, as well as a health resort.

Next in importance to Funchal is *Camara de Lobos* (population 7,150), the centre of a vine-growing district. *Machico* (6,128) lies in the east of the island; *Santa Cruz* (5,876) is on the south-east coast; *Ponta do Sol* (5,665) is west of Funchal; and along the north side of the island are *San Vicente* (4,896) and *Santa Anna* (3,011). *Camacha*, east of Funchal, is in a healthy position; *Prazeres* is the chief village in an agricultural district; *Calheta* (3,475) is a fishing town on the south coast; and *Magdalena*, farther east, has banana plantations.

Movement

The population of Madeira has been increasing. In 1885 it was about 134,000, in 1900 it was 150,574 (including 830 foreigners), and in 1910 it was 166,826. The birth-rate is high and is not declining, and infant mortality is less than might be expected. The births considerably outnumber the deaths, and the increase of population would be greater were it not for emigration.

The majority of the foreign population are tourists and invalids, and persons engaged in the wine trade. Most of them are British, of whom there are about 300 in Funchal, but there are also Germans, Dutch, Scandinavians and Russians.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1418-20. Discovery and Settlement of Madeira.
- 1432. Discovery of the Azores.
- 1444. First settlement of San Miguel.
- 1450. First settlement of Terceira.
- 1461. Introduction of the vine and sugar-cane into Madeira.
- 1514. Funchal becomes a bishopric.
- 1524. Introduction of the sweet orange into the Azores.
- 1566. Funchal attacked and plundered by the French.
- 1580-83. War in the Azores against Philip II.
- 1589. Van Linschoten in the Azores.
- 1591. Fight of the *Revenge*.
- 1635. The Mandarin orange introduced.
- 1801-2. Temporary English occupation of Madeira.
- 1807-14. " " " "
- 1828-32. Dom Miguel holds Madeira.
- 1831. Dom Pedro's expedition against Dom Miguel organized in the Azores.
- 1832. The Azores declared by Dom Pedro to be a province of Portugal and no longer a colony.
- 1836. The Azores divided into three districts with capitals at Ponta Delgada, Angra and Horta.
- 1903-6. German syndicate formed to exploit Madeira.

AZORES

Although these islands are clearly shown in certain Genoese maps of the 14th century, i.e. the *Conoscimento* of 1330 and the *Portolano* of 1341, yet there is no record of any discovery of them before Prince Henry the Navigator, relying probably on these maps, sent out an explorer to look for the islands in 1431. Gonçalo

Cabral, with Diego de Sevil as his pilot, first found the cluster of rocks called the Formigas (or Ants), and in 1432 he discovered the small island of Santa Maria. In 1444 he discovered the island of San Miguel and, having received a commission to colonize it, founded the city of Ponta Delgada. San Miguel and in fact the whole group were uninhabited when discovered. The next island discovered was Terceira (i.e. the Third) in 1450. This and other islands of the central group received a large number of Flemish settlers brought out by Josua van der Berge of Bruges (Jacques de Bruges), who received a charter from Prince Henry. The last group to be colonized was that to the north-west, consisting of the small islands of Flores and Corvo. Other Flemings were brought out by Van Huerta, from whom Horta, the principal town of the island of Fayal, is said to have taken its name. But the great mass of the people are of Portuguese descent, and Portuguese is the only language. Owing to the large Flemish settlement in some of the islands, the Azores were often called by writers of the 16th century "the Flemish Islands." Van Linschoten in 1589-91 found the descendants of the early Flemish colonists still clearly distinguished from the Portuguese, but they spoke only the Portuguese language. All traces of a varying origin have now disappeared. In the island of San Miguel there are traditions of a Breton settlement, which is commemorated in the name of the village Bretanha, but of this there is no historical evidence. The island of Graciosa was colonized from Portugal by Sodré.

The fertility and temperate climate of the Azores caused the population to grow rapidly. The sweet orange was introduced by João Correa of Terceira (1524), and the China orange or "Mandarin" was brought from Goa in 1635. These trees suited the soil and climate, and the orange export trade flourished until

the recent destruction of trees by disease; it has now almost disappeared.

The Azores were of great value to Portugal during the great days of her colonial empire as a depot for provisioning the fleets returning from the East. The earliest example is that of Vasco da Gama, who landed at Terceira on his return from his first great expedition. His brother Paulo da Gama died there.

Ships from Brazil and afterwards from Spanish America made these islands their port of call. They were at the same time very accessible to attack from enemies, especially during the time when Portugal was under Spanish rule (1580–1640). Their isolated position has also on more than one occasion led to these islands becoming the nucleus of rebellions or a refuge for pretenders to the crown. In 1580 they took up the cause of Dom Antonio, who claimed the throne against Philip II of Spain. The island of Terceira led the way, and the first Spanish force which landed there was defeated by the villagers. The island of San Miguel, however, had been occupied without resistance and was attacked by Dom Antonio's fleet with a considerable French force, which made a successful landing and occupied a great part of the island. A desperate naval battle with a Spanish fleet off Villa Franca ended in the defeat of Dom Antonio and the French. Dom Antonio took refuge again in Terceira, which was not finally subdued till 1583. Terceira, with its excellent port Angra do Heroismo, became the centre of Spanish rule, and its neighbourhood a happy hunting ground for the English fleets, which took many valuable prizes both from the East and West Indies.

Van Linschoten, the Dutch traveller, who returned from India with a Portuguese fleet and arrived at Terceira in 1589 soon after the defeat of the Armada, gives a vivid account of the precarious conditions

attending the fleets of those days and the daring of the small English ships which roamed at their will about the islands, taking or sinking ships and frequently landing without opposition to get supplies or even carrying on trade. Van Linschoten was detained about three years in the Azores, as his ship would not sail without an escort; and during this period English fleets under Frobisher and Hawkins frequently visited the islands. A great fleet sent out in 1590 from Coruña to convoy the numerous ships to Lisbon put back without carrying out its task, and the English fleet near Corvo was not attacked. About a year later another fleet arrived at the islands and met the English fleet off Flores. Van Linschoten's account of what followed, including the celebrated fight of the *Revenge* under Sir Richard Grenville and the great storm which afterwards destroyed the Spanish fleet, is one of the chief authorities for these events. His long stay at Terceira enabled him to collect much information about the Azores, of which he gives a very full account.

The second occasion on which the Azores served as a rallying point for the party out of power was in 1831, when they took up the cause of Donna Maria II, the youthful queen, against her uncle Dom Miguel who had usurped the throne. Dom Pedro, the young queen's father (the ex-Emperor of Brazil), gradually got together sufficient forces in the islands to attack the Miguelists on the continent; and the brilliant landing near Oporto led to the fall of Dom Miguel and the re-establishment of constitutional government.

Up to this period the Azores had been considered a colony and were under the rule of a Captain-General; but in 1832, after the assistance they had given in the restoration, Dom Pedro declared them to be a province of Portugal, with its capital at Angra in Terceira. In 1836 three districts were constituted, the Eastern, in-

cluding the islands of San Miguel and Santa Maria, with Ponta Delgada as capital; the Central, including Terceira, San Jorge and Graciosa, with Angra as capital; and the Western, including Fayal, Pico, Flores and Corvo, with Horta as capital.

The Azores suffered considerably from the loss of the orange trade mentioned above and from other causes; and the poverty which followed among the crowded population has led to very considerable emigration, principally to Brazil, the United States and the Sandwich Islands. The peasant immigrants into the Sandwich Islands have been very successful, and the climate suits them better than that of Brazil. The present Republican Government of Portugal is endeavouring to divert some part of the emigration to the more healthy uplands of southern Angola.

MADEIRA

Madeira is the principal island of a group, the smaller and less important members of which are generally included in the name. Of these the only one inhabited is Porto Santo, which lies 23 miles north-east of Madeira. Madeira is not considered to be a colony, but is an integral part of Portugal, and, like the Azores, is represented in the Cortes.

The discovery by the Portuguese took place in the years 1418–20. The first landing on Porto Santo is considered as having taken place in 1418 and that on Madeira in 1420. The islands at the time showed no traces of having been inhabited by man. Two travellers, of whom the chief was João Gonçalves, nicknamed Zarco (blue-eyed), who had been sent out by Prince Henry to explore the African coast, were driven by a storm to an island which, in recognition of their escape from destruction, they called Porto Santo, or the Holy

Port. As the island seemed fit for colonization, they returned to Portugal and reported to Prince Henry. He immediately fitted out three ships, two under the first discoverers and one under Bartolomeu Perestrello. They occupied Porto Santo, whence Perestrello subsequently returned to Portugal. In his absence, João Gonçalves and his companion, Tristão Vaz, made a landing on the larger island, which, owing to the dense forests then covering it, they named Madeira, or the Wood. The first landing was made on the south coast at a spot nearly six miles west of Funchal, which they called *Camara dos lobos marinhos* (the seals' chamber) from the number of tracks of these animals. From this João Gonçalves was given the surname of Da Camara under which the family became famous. The town was laid out on a plain covered with fennel (*funcho*) and hence received the name of Funchal.

Madeira was divided by Prince Henry into two captaincies, which he gave to the two discoverers; Porto Santo he bestowed upon Perestrello. Colonization at once began and promised well, but Porto Santo was rendered almost uninhabitable by a plague of rabbits, which had been introduced by Perestrello. In Madeira progress was delayed by the outbreak of forest fires, which are said to have raged for seven years and nearly drove the colonists from the island. However the natural fertility of the soil soon made the settlement prosperous. Prince Henry introduced the Malmsey vine from Crete and the sugar-cane from Sicily, and both became sources of great wealth. Until the development of the sugar plantations in the West Indies, Madeira was one of the principal sugar-growing countries, but, as this supremacy passed away, it came to depend more and more on its wine.

Funchal was raised to the rank of a city in 1508; and the bishopric founded in 1514 was afterwards raised to

an archbishopric to which was attached, as De Barros says, "the Primacy of the Indies."

The government of Madeira continued under the Camara family until the island, with the rest of Portugal, passed under the rule of Philip II in 1580. Porto Santo was long under the Perestrello family; and Columbus, who married the daughter of the first Governor of this family, is said to have lived some time in Porto Santo and afterwards in Funchal when he was collecting the information which led to his great discovery.

The history of Madeira after its settlement and colonization is not marked by many events of importance. The city of Funchal was attacked, plundered, and partly destroyed in 1566 by a French raiding fleet led by Pierre Beltrau de Montluc. In the 17th and 18th centuries, after the alliance between England and Portugal had been strengthened by the marriage between Charles II and Catherine, daughter of João IV and sister of King Pedro, trade with England began to flourish. Lisbon and Madeira became favourite resorts for Englishmen; and the wines of Oporto and Madeira were in greater favour than any other.

The most remarkable manifestation of the privileged position of the British in Madeira was the establishment of the British Factory, a corporate body formed to protect and further the interests of English merchants in the island. In the course of the eighteenth century this body, which had the right to levy duties on all British exports and imports, became exceedingly powerful and played a large part in the development of its adopted country. Its activities were not confined to commercial channels. It spent its funds freely on works of public utility, such as the construction and extension of irrigation channels and harbour and municipal improvements. Meeting under the presidency of the British Consul-General, it acquired a semi-official position which

enabled it to obtain certain important concessions, such as the right to build an Anglican church and to form a Protestant burial ground. It nominated and paid a number of Portuguese officials, and even, for a time, made an allowance to the governor of the island. Ultimately, however, its power, and the practical monopoly of trade which, on its own showing, it had established, aroused local jealousy, and attacks were directed against it in the press. The Factory fought hard to retain its position, but by the third decade of the nineteenth century its influence was well on the wane; its functions were one by one abandoned; and gradually it ceased to have any corporate existence, though some of its philanthropic and ecclesiastical work is still carried on by prominent English merchants.

The Napoleonic wars led to the occupation of Madeira by the British for two periods, the first in 1801 and 1802, and the second from 1807, when Junot entered Lisbon, till the close of the Peninsular War.

Madeira was to some extent involved in the Miguelist disturbances in 1828. The island was in favour of Dom Pedro and the young queen, his daughter Donna Maria, but had to give way to a force sent out by Dom Miguel in 1828, until the final overthrow of his regime in 1832.

The designs of a syndicate formed in Germany in 1903 to obtain control over the resources of Madeira under the disguise of a philanthropic scheme were exposed in 1906 (see below, p. 55).

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE separation of Church and State effected by the Republican Government in Portugal applied also to the Azores and Madeira, which are an integral part of the Republic. The Roman Catholic bishoprics of Angra and Funchal are now suffragans to the see of Lisbon.

(2) POLITICAL

The Azores have, since 1832, constituted a Portuguese province. The islands are represented in the Cortes of Portugal, and the administration in no way differs from that of continental Portugal¹. Azorians are strongly represented in modern political movements and in every branch of Portuguese life, and most of the young men of means complete their education at Coimbra University. The first President of the Republic, Senhor Theophilo Braga, an author of distinction, was a native of San Miguel.

A scheme of local self-government for Madeira was sanctioned in 1902, but this does not imply any real autonomy. Madeira is in fact part of Portugal, and, like the Azores, is in exactly the same position as a province of continental Portugal. It is represented in the Lisbon Cortes by deputies. Funchal is the capital.

¹ For the administrative districts see pp. 18-19.

IV. ECONOMIC CONDITIONS

AZORES

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads and Tracks*

THE archipelago is well provided with roads. Fayal and Terceira possess carriage roads, which encircle the islands and cross them in various directions, while San Miguel is similarly encircled and intersected throughout nine-tenths of its area, the rest being served by tracks. The islands are mountainous, but their slopes are not so precipitous as those in Madeira and the Canaries; hence the roads are suitable for motoring and cycling.

(b) *Posts and Telegraphs*

There are postal-telegraphic offices in every island, and a number of sub-offices in the larger ones; San Miguel and Terceira have five or six each.

(2) EXTERNAL

(a) *Ports*

The chief port is *Ponta Delgada*, in San Miguel. It possesses a safe harbour, with accommodation for a dozen large ocean-going steamers and numerous small vessels. There is a mole which when complete will be over 4,200 feet in length; 1,200 feet have still to be built. A store at the inner end of the harbour holds 8,000 tons of coal. Ordinary repairs can be executed. Of the 221 vessels (aggregate tonnage, 641,489) that entered

the port in 1913, 97 were British (396,221 tons), 30 German (63,794 tons) and 39 French (114,328 tons). Nearly all of these vessels were steamships in ballast. ✓

Angra do Heroismo, in Terceira, is the next in importance; it has three moles and a sheltered anchorage, which is safe from January to September and only exposed to gales from the south-west.

Horta, in Fayal, is a very fair natural harbour, with anchorage in all weathers for large ships within 300 yards of the landing place. There is a breakwater 2,400 feet long, alongside which four large vessels can be berthed in a depth of five fathoms, while the harbour should be capable of sheltering from 15 to 20 large vessels. South-west winds blow strongly into the bay. At the Government breakwater works only slight repairs can be made. Of the 75 vessels, mostly steamships in ballast, with an aggregate tonnage amounting to 244,995, which entered Horta in 1913, three were British (6,443 tons) and 29 French (156,289 tons).

The importance of both Ponta Delgada and Horta as coaling-stations will be increased as the result of the opening of the Panama Canal.

(b) *Shipping Lines*

The islands have not hitherto been very well served by shipping lines. The *Empresa Insulana*, which connects Lisbon with the Azores, used before the war to run a monthly steamer to several of the islands, calling at Madeira; the round trip covered a period of about two weeks and a half. There was also a fortnightly steamer to San Miguel, Terceira and Fayal. Of foreign lines, the Royal Mail Steam Packet Co.'s boats made occasional calls at Ponta Delgada between April and September, and the port was visited by the White Star Line on their eastward sailings from New York and Boston to the Mediterranean. It was also a

place of call for the steamers of Cyprien Fabre & Cie., plying between Naples or Marseilles and New York.

(c) *Cable and Wireless Communications*

Horta is connected by cables of the Eastern and Associated Telegraph Company with Porthcurno (England), through Ponta Delgada with Carcavellos (Portugal), and with San Vicente in the Cape Verde Islands; it is also connected with New York, Cape Canso in Nova Scotia, Emden, and Waterville (Ireland). Between 1893 and 1904 there were no less than five breakages in the cables within the triangle formed by the islands of San Miguel, Pico and Terceira, due either to submarine eruptions or to the fusion of the insulating gutta-percha.

There are wireless stations at Santa Cruz in Flores, at Cedros in Fayal, at Ponta Delgada, and in Corvo and Santa Maria.

(B) INDUSTRY

(1) LABOUR

The population of the Azores is mostly white, but, as in the African possessions of Portugal, there is a large infusion of negro blood. The inhabitants have a reputation for honesty and industry, but there is little on record about their capacity as labourers. The inhabitants of Flores are known to make good sailors.

The resources of the islands are inadequate for the support of the islanders, whose numbers increased from 80,000 in 1818 to nearly 250,000 in 1911. Consequently there is much emigration: it is estimated that from 2,000 to 3,000 emigrants leave the Azores every year. In the year 1903 alone the emigrants from the district of Ponta Delgada numbered 2,316, from that of Angra, 1,341, and from that of Horta, 1,270. As a rule the natives of San Miguel, Santa Maria and

Terceira emigrate to Brazil; those of Fayal, Flores, and San Jorge to the United States. Both classes have a tendency to return to their native land, but on their return the "Americanos" make much better citizens than the "Brazileiros." There is also a certain amount of emigration to Hawaii and to the Portuguese possessions in Africa.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Vegetable Products.—Plants belonging both to the tropical and to the temperate zones flourish in the Azores, and there are many exotic crops which are cultivated with great success.

Among native crops, or crops that have been so long acclimatized that they are regarded as native, the leading place is taken by *maize* and *beans*. The former supplies the staple food of the inhabitants, but other cereals are grown, including *wheat*, *barley* (especially in Graciosa), and *millet* (in Santa Maria). The maize and beans of the Azores find a ready and increasing market in Portugal.

Of exotic crops the most important used to be the *sugar-cane*, which grows freely in the islands, but, though protected by a tariff none too favourable to foreign goods, its produce has been unable to hold its own in the Lisbon market, and its cultivation has been superseded by that of *beet*. At first, shipments of dried beet-pulp used to be made, but now the prepared sugar is exported. San Miguel and Terceira are the centres of the sugar-beet industry.

Fruit grows abundantly. *Oranges* used to be a source of profit in the past and are still grown, but on a very restricted scale, as they can be raised and marketed more cheaply elsewhere; many of the orange groves have been destroyed by disease recently, and their place

has been taken by *sweet potatoes* and *pineapples*. From the former alcohol is made in three distilleries. The pineapples, which are grown under glass, especially in San Miguel, are at present the favourite crop and yield handsome profits; they are exported mostly to London. Other fruits exported are *bananas* and *apricots*, great quantities of the latter being grown in Pico. *Yams* are grown in Fayal, and *figs*, *lemons*, *loquats*, and *pomegranates* prosper in the archipelago. The *vine*, as in Madeira, had a period of failure owing to *oidium* and *phylloxera*; from this, however, it has recovered. It is planted chiefly in Pico and San Miguel; the *Isabella* grape, one of the varieties grown on those two islands, gives the wine a special flavour. The best wine comes from Coloura in San Miguel. It does not, however, come up to the standard insisted upon by the foreign residents, for whose use a considerable quantity of Portuguese table-wine is imported.

Other crops include *tobacco*, *New Zealand flax* (*Phormium tenax*), of which a good deal is planted for the use of the inhabitants, *coffee*, and *tea*, which is prepared in San Miguel for the Lisbon market. A kind of *indigo* used to be grown, but it has now disappeared. *Orchilla* is still grown in some of the islands.

The acclimatization of plants has been hampered by the absence of a well-marked winter and summer. There is no frost or drought to control the various pests to which non-indigenous plants are liable, and the uniform warmth and persistent damp of the island climate impartially stimulate the growth of the plant itself and of the parasite which injures or destroys it.

Live-stock.—The island most noted for its flocks and herds is Terceira. Its bulls are savage animals, used for bull-fights, and dangerous to strangers. Cheese and butter are exported, chiefly from Terceira. In

San Jorge a kind of Gruyère cheese is produced, which has a considerable reputation.

(b) *Methods of Cultivation*

The methods of cultivation do not differ materially from those in vogue in Portugal. Owing to high and steady rainfall, artificial irrigation is rarely necessary, and the fertility of the soil is such that three or four crops in the year are often produced.

(c) *Forestry*

The island forests were once of great value, but, except in Pico, where a certain amount of timber survives, they have been largely destroyed by reckless felling. Of recent years there has been much replanting; various trees have been introduced, including pine, poplar, eucalyptus, the tulip tree, the African palm-tree and many others. The forests, which grow luxuriantly on the volcanic mountain-sides, come right down to the cultivated land, and form a belt between it and the shrubland (*macchia*) which is found on the highest points.

(d) *Land Tenure*

There is not much to distinguish the system of land tenure in these islands from that of Portugal itself. The land is largely in the hands of big landed proprietors living in Portugal, who let out their estates in small lots.

(3) FISHERIES

Fresh-water fishing may be had in most of the lakes formed by volcanic craters throughout the archipelago. Eels, which are a staple article of diet with the islanders, are abundant in the streams. The deep-sea fishing is excellent, especially in the channel separating the islands of Fayal and Pico, and on the Princess Alice

Bank 50 miles south-west of Fayal. The chief sea-fish caught are mackerel, tunny, and bonito, which is a variety of tunny. Dolphins are numerous off San Miguel; their flesh is boiled down for the sake of the oil it contains. Whaleries are conducted by Americans; the chief are in Fayal and at Capellas in San Miguel.

(4) MINERALS

There are no minerals of special value in the Azores. In the seventeenth century a certain amount of *alum* used to be extracted in San Miguel, and factories for its preparation existed at Caldeira and Furnas; but the industry has long disappeared. *Basalt* and allied rocks are the only building stone. On some coasts boulders of granite and schist are found, but in quantities too small to be of any economic importance. Among the products of rock decomposition are various *clays*, some of which are employed in the manufacture of pottery, as in Santa Maria, while others are said to be exported for the manufacture of pozzolanic cement. There is an unimportant deposit of *lignite* near Furnas in San Miguel.

Mineral springs abound. There are hot and cold springs of therapeutic value at Furnas, and in the same neighbourhood are the springs of Lombadas, the source of the table-water of that name, which is generally consumed in Portugal and the Portuguese colonies in Africa. There are many mineral springs in the north of San Miguel, and in the west are hot springs at Mosteiros and Ponta Ferraria. Of the other islands the richest in hot springs seem to be Flores and Graciosa; the best are near Ilheos Point in the south-west of Flores, and at Carapacho in Graciosa.

(5) MANUFACTURES

The industries are, as a rule, small and primitive. In San Miguel, as also in Fayal, drawn linen work (*crivo*) of the Peniche type and wickerwork are made. At Ponta Delgada two tobacco factories occupy 400 workmen and many women, and there are also sugar factories and a brewery. In the same district cotton fabrics, spirits and straw hats are manufactured and tea is prepared for the market. There is a pottery at Lagoa; the potteries on Santa Maria have been already mentioned. In the Angra district linen and woollen goods are manufactured, also soap, bricks and tiles. In the Horta district the chief industry is the manufacture of baskets, mats and other articles from straw, osler, and the pith of fig-wood.

(C) COMMERCE

(1) DOMESTIC

(a) *Organizations to promote Trade and Commerce*

The Azores have been granted a certain limited (almost nominal) autonomy, and an organization for promoting local interests exists under the title of *Autonomia Michaelense*; but very little information is forthcoming about its activities. The *Partida Regionalista* is a semi-political commercial union with headquarters at Ponta Delgada. There is also an association of retail shopkeepers, the *Associação de Logistas*.

(b) *Foreign Interests*

A glance at the local directory shows that, judging by the names, the bulk of the trade of the Azores is in Portuguese hands; but foreign mercantile shipping and banking interests, chiefly American, are out of all proportion to Portuguese. There is only one Portuguese line of steamers plying between Lisbon and the

Azores, and that with a fleet not exceeding three ships. While there are seven Portuguese banks with branches or agencies, there are no less than thirty American banking establishments, besides five English. The amount of business done by these agencies is not declared. Apart from the banks and the American whalerics already mentioned, probably the chief foreign establishment is the Azores Coaling Co., Ltd., at Ponta Delgada.

(2) FOREIGN

(a) *Exports*

Quantities and Values.—The available sources of information do not make it possible for a complete statement of exports to be prepared. The total exports from San Miguel in 1913 amounted in value to £214,976, and in 1914 to £270,472, while those from Fayal amounted to £32,728 in 1913 and £26,477 in 1914.

The chief export of the Azores is the pineapple, which accounted for half the exports of San Miguel in 1913 and for nearly a third even in 1914, when the trade was affected by the closing of the Hamburg market. Next in importance are tobacco, sugar, and beans, followed by maize and alcohol. The export of maize greatly exceeds the import of cereals. Corn and maize, butter, cattle, hides, and sperm oil figure among the chief exports from Fayal to Portugal; detailed particulars of the exports from that island to the United Kingdom are not available. The chief exports from Angra, in Terceira, are grain, vegetables, flour, butter, cheese, and cattle.

The following table shows the values of the principal articles exported from San Miguel in 1913 and 1914:

	1913	1914
	£	£
Alcohol	15,959	16,563
Beans	14,749	50,018
Maize	3,245	14,869
Mineral waters ...	2,344	2,682
Pineapples	111,926	66,444
Sugar	—	50,021
Tea	8,192	8,416
Tobacco and Cigars ...	48,531	51,708

The returns for Fayal do not distinguish between the different articles exported except in the case of those sent to Portugal, the chief of which were as follows:

	1913	1914
	£	£
Butter	4,170	4,320
Cattle	2,852	1,767
Corn and Maize ...	5,406	319
Hides	1,575	1,298
Sperm oil	1,183	1,089
Wheat	447	335

Countries of Destination.—The destination of most of the exports from the Azores is Portugal. Out of the total exports from Fayal in 1913 a value of £20,475 went to Portugal, and of £12,253 to the United Kingdom. This last figure represented a huge increase over 1912, when the value was £3,174 only. In 1912 the United States took goods to the value of £6,927, but they took nothing in 1913 or 1914.

(b) Imports

Quantities and Values.—The total value of the imports to San Miguel was £334,633 in 1913 and £272,510 in 1914, while those to Fayal amounted in value to £93,691 in 1913 and £78,824 in 1914.

The chief imports are textiles, coal, salt, soap, flour and wheat, wines and spirits, machinery, dried fish, timber, matches, and petroleum. The following table shows the values of the principal imports to San Miguel in 1913 and 1914:

	1913	1914
	£	£
Alcoholic Beverages ...	12,041	3,203
Coal	45,361	26,147
Fertilizers	2,363	10,576
Fish, Dried	14,177	5,936
Flour	10,267	10,261
Iron and Ironwork ...	10,606	10,223
Matches	11,732	10,328
Petroleum	6,308	6,214
Salt	20,812	21,596
Soap	11,902	13,111
Textiles	40,623	36,078
Wines	9,158	9,397

The chief imports into Fayal in corresponding years were as follows:

	1913	1914
	£	£
Coal	11,654	8,307
Cotton	15,936	10,755
Flour	6,990	4,857
Iron	1,737	3,120
Leather	2,119	2,139
Sugar	6,207	7,109
Tobacco	5,656	5,266
Woollens	3,659	2,915

Countries of Origin.—Portugal holds the first place in the import as well as in the export trade of the Azores. In 1913 the Portuguese imports amounted to two-thirds of the total for San Miguel, and were not much less for Fayal. Next in importance are those from the United Kingdom, which are roughly a fifth of the total both in Fayal and in San Miguel, though

in 1912 they rose to more than a quarter in the case of the former. The United States came third, and Germany before the war was fourth.

The chief imports from Portugal are textiles, salt, soap, flour, wines and spirits, and fertilizers; from the United Kingdom, coal (which in 1913 amounted in value to nearly £16,000), textiles, fertilizers, machinery, lubricating oil, dried fish, and cement; from the United States, wheat, timber, motor-cars, petroleum, petrol, and textiles; from Germany, textiles, tobacco, seeds and plants, cereals, chemicals, fertilizers, machinery, iron and iron-work. France sends motor-cars, textiles, and printing-paper.

The following table shows the share of the different countries in the imports to San Miguel in 1913 and 1914:

	1913	1914
	£	£
France... ..	4,144	2,458
Germany	17,408	13,334
Portugal	219,589	193,013
United Kingdom ...	68,550	42,743
United States... ..	23,210	17,990
Other Countries ...	1,732	2,972

The share of the countries in the imports to Fayal in the same years was as follows:

	1913	1914
	£	£
France... ..	1,241	682
Germany	4,801	3,846
Netherlands	528	271
Portugal	57,852	52,367
United Kingdom ...	19,194	15,979
United States... ..	9,932	4,616
Other Countries ...	143	1,063

(D) FINANCE

(1) *Public Finance*

Finance is not a matter of local administration, as the islands are theoretically an integral part of Portugal, and provision is made for them in the national budget.

(2) *Currency*

The islands use the Portuguese currency, so far as its nomenclature goes, but reckon it in *reis fracos* instead of the *reis fortes* of European Portugal. Thus the local (paper) *escudo* and its decimal divisions (copper only) are merely the equivalent of four-fifths of the Portuguese coinage of the same denomination. All quotations of price are made in local currency.

(3) *Banking*

There are branches or agencies of the Bank of Portugal in Ponta Delgada, Angra and Horta. In Ponta Delgada there are also the Banco Michaelense, Caixa Economica, and Caixa Esperança; and in Angra the Banco Commercial de Lisboa, the Banco Alliança and the Banco de Lisboa e Açores. Several other Portuguese establishments carry on banking operations, among them Bensaude & Co. in Horta. As has been said above, there are a large number of American and other foreign banking establishments in the islands.

(E) GENERAL REMARKS

The chief asset of the Azores is their geographical position, and this will be rendered even more advantageous than it was by the opening of the new trade route *via* the Panama Canal, which will increase the importance of the islands as a coaling station. The group is not blest with so fine a climate as Madeira, and has no mineral resources; but fruit grows abundantly and the fruit trade could probably be stimulated.

The islands have come a great deal under American influence, not only because they are on the natural highway from Europe to America, but because a great number of emigrants from the Azores to the United States return home in sympathy with American ideas.

After Portugal came into the war as an ally of the Entente Powers, the Azores were very valuable as a supply depot and coaling station for the Allied fleets. The harbour of Ponta Delgada, being the best in the Central Atlantic, afforded a useful rendezvous; during the years 1917-18 the American armies made great use of it, and the aerodrome they established near Ponta Delgada was able to do good service in the protection of trade. Ponta Delgada was once bombarded by a German submarine.

MADEIRA

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads and Tracks*

The streets in Funchal are generally maintained in reasonably good order and have recently been improved on account of the introduction of motor-cars. Apart from these streets Madeira in 1917 possessed only two macadamized roads; one running westward from the capital to Camara de Lobos; the other, of which also some four miles had been completed, running eastward towards Caniço, six miles from Funchal, to be prolonged eventually to Santa Cruz and Machico, when its total length will be eleven miles. Some guide-books, with a more liberal interpretation of what constitutes a good road, assign greater lengths to the completed portions of these roads.

A road has been planned to replace the existing track which roughly bisects the island from north to south. It will connect San Vicente on the north coast with Ribeira Brava on the south. Two or three other roads are under consideration, which are intended to link up the outlying villages of Porto Moniz, in the extreme north-west, and Santo Antonio da Serra, near Machico, towards the eastern end of the island, but their construction has not yet been sanctioned. Meanwhile, the numerous tracks paved with cobble-stones serve as highways, and the *levadas* or water channels (see below, p. 47) are frequently used. The customary means of transit are bullock-carts, sledges, and portable hammocks.

(b) *Rivers and Canals*

There are no navigable rivers, and such canals as exist are intended for irrigation only.

(c) *Railway*

A rack railway, two and a half miles long, connects the Terra da Lucta (3,000 ft.) with the town of Funchal, serving on its way the group of hotels at Monte (about 2,000 ft.). The lower terminus of this line is connected by a tram-line with the landing-place at the port, and the car-service is quite adequate for the traffic. Possibly the railway will be extended to Poizo and Pico Arriero.

(d) *Posts and Telegraphs*

There are post and telegraph offices at the chief ports of call of the coasting steamers, and also at Santa Anna and San Vicente. There are a dozen telegraph and three semaphore stations in the island.

(2) EXTERNAL

(a) *Ports*

The only harbour in Madeira is that of *Funchal*. It is still imperfect, being little more than an open

roadstead about $5\frac{1}{2}$ miles wide with a central stone pier for boats and launches. It is dangerous in bad weather, being especially exposed to surf when the wind is west or south-west. The sea is too deep for a really good harbour to be constructed. There is a plentiful supply of water and coal, and some facilities for small repairs. Part of the roadstead is Portinha Bay, which is made by an artificial embankment carried south to Ilhéu (Loo Rock); this is sheltered from the south but offers very cramped space, and may only be used by vessels which have been damaged and need repairs. Loo Rock is a fortified islet with a battery of coast artillery upon it; the best anchorage, especially during the winter months, lies south of it.

Funchal is served by a number of steam launches belonging to the *Empresa Funchalense de Transportes Maritimos a Vapore*, which are used principally for carrying passengers to and from the steamers. Of the 1,027 vessels that entered the port of Funchal in 1914, 485 were British and 284 German, most of them in ballast. The Portuguese vessels entering numbered 116.

There have been proposals to make a new harbour at *Porto Moniz* and to build a good road between that place and Funchal, from which it is 30 km. distant.

At *Porto Santo*, on the island of the same name, the arrangements for landing and embarking are still very primitive, but the bay affords fair shelter in settled weather.

(b) *Shipping Lines*

Before the war the vessels of some six or seven British, four or five German, and one or two French companies used to call at Madeira on their regular voyages weekly, fortnightly, or thrice a month.

The Union-Castle liners from Southampton to Cape

Town carried mails to Madeira once a week, calling weekly on the return voyage for a cargo of fruit and potatoes in addition to the mails. The Royal Mail Steam Packet Company had weekly sailings from Southampton and fortnightly from London. The Elder-Dempster Line had fortnightly sailings on Saturdays from Liverpool and sailings from Hamburg on the 9th of every month. The Booth Line (fortnightly from Liverpool and Penarth) and the Yeoward Line made a speciality of tourist traffic with Madeira and the Canaries. The leading German lines were the Woermann, Norddeutscher Lloyd, Hamburg Süd-Amerika, and Hamburg-Bremer-Afrika. Two French companies that called regularly were the Chargeurs Réunis and the Société Générale de Transports Maritimes à Vapeur, the latter sailing from Marseilles and Genoa. A Dutch company, the Koninklijke West-Indische Maildienst, had sailings from Amsterdam to Madeira. Two Portuguese lines, the Empresa Nacional de Navegação, reconstructed in 1918 as the Companhia Nacional, and the Azores boats of the Empresa Insulana, used also to call at Funchal on the outward and homeward voyages. The former used to make two calls a month each way; the latter came once a month.

Besides ocean-going vessels there is a fairly efficient coasting service. Vessels sail eastward from Funchal to Santa Cruz and Machico three times a week, with occasional extra trips on intervening days; and westward to Camara de Lobos daily, except Sundays, to Campanario and Ribeira Brava three times a week, with extra trips to the former on Saturdays, and to Ponta do Sol, Anjos, Magdalena, Arco de Calheta, Paul do Mar, and Ponta do Pargo three times a week. There are also vessels carrying freight (and, exceptionally, passengers) from Machico and Campanario to the northern ports. These make two or three runs a month in the

summer and autumn only. Sailings to and from the island of Porto Santo are irregular. Finally, Blandy Bros. run three passenger-boats and two coaling-boats to all the island ports and Porto Santo, which ply all the year round.

(c) *Cable and Wireless Communications*

Madeira is connected with Lisbon by two cables, and with Porthcurno (England) by a cable which is extended to San Vicente in the Cape Verde Islands, and thence to Pernambuco, and also to the Cape of Good Hope *via* Ascension and St. Helena.

The Marconi Company in 1914 proposed the establishment of a wireless station at Ponta do Pargo, to communicate with the Cape Verde Islands, the Azores, and Lisbon.

(B) INDUSTRY

(1) LABOUR

Madeira, with a dense population, has an agricultural area of only 45,000 or 50,000 acres, and even this, owing to the nature of the soil, is broken up into such small and scattered properties that its cultivation entails an inordinate expenditure of time and labour. Hence there has always been a good deal of emigration, which is further stimulated by the heavy customs dues in force and the consequent high cost of living. More than a thousand persons leave the island every year; the greater number go to British Guiana, Brazil, California, South Africa, the Sandwich Islands or Portuguese Africa. Of the permanent population more than two-thirds are engaged in agriculture, while local trades and industries and domestic service give employment to a large part of the remainder.

The land on the lower levels, which is naturally the most fertile, is mainly in the hands of large proprietors, who employ a certain amount of hired labour. Higher

up are small holdings, which often consist of artificially formed terrace-land. These are cultivated by the occupants and their families at the expense of incessant toil, the burden of which falls chiefly upon the women. During the summer a good deal of the agricultural work is done at night. Many of the inhabitants of Madeira are skilful gardeners, but they are conservative and not very ready to learn new methods.

(2) AGRICULTURE

(a) *Products of Commercial Value*

Vegetable Products.—The cultivated area of Madeira seldom extends for more than two and a half miles inland on the south side of the island or for more than half that distance on the north. There are three zones of cultivation: up to 600 feet grow bananas, sugarcane, dates and figs; between 600 and 1,800 feet grow vines; above 1,800 feet are European fruit trees, vegetables, cereals, pasture and forest. Above 2,500 feet the hills are too barren and wind-swept for cereals to be grown, but they furnish heath and broom, which are largely used as fuel. The most important products for purposes of export are wine and sugar.

Of the *cereals*, *wheat* occupies from 4,500 to 5,000 acres. The harvest, including that of the island of Porto Santo, where wheat is the leading crop, amounts to 1,800 metric tons per annum, but as the annual consumption of wheat in the islands is close upon 9,000 metric tons, a large quantity has to be imported. The chief wheat-growing country is round Prazeres in the west. A certain quantity of *maize*, which is a staple food of the natives, is raised in the northern part of the island, but this crop also falls far short of the demand and has to be supplemented from foreign sources. *Barley* is grown to a limited extent.

Fruit and *vegetables* are produced to some extent for export as well as for domestic consumption. The shipment of the former was for many years hampered by customs restrictions upon the import of packing materials, but by 1913 the injury thus being done to the trade of the island began to be recognised by the authorities and arrangements were made for the material to be imported in bond. *Bananas*, *dates* and *pineapples* (grown under glass) enjoyed a sure market in Lisbon until scarcity of food in Madeira and war conditions led to the prohibition of their export; a certain amount of trade is also done with the ships that come into Funchal harbour. Angel Marvaud (1909) estimated the area under bananas alone to be about 250 acres, yielding annually 3,000–4,000 bunches of 200 fruits each, and giving a return of about 525 *escudos* per acre; the Chinese banana is especially common, the best plantation being at Magdalena. The fruit trees familiar in Great Britain grow side by side with those of Southern Europe and tropical climes. There are many fine *walnut* trees in the valley of San Vicente, and extensive *cherry* plantations in Serra d'Agna. Other fruits grown are *oranges*, *lemons*, three species of *figs*, *guava*, *mango*, *loquat* and *pawpaw*, the fruit of the latter being used, it is said, to make meat tender.

Madeira puts early vegetables upon the market. *Potatoes* and *sweet potatoes* yield three or four crops a year; the leaves of the latter are used as fodder for pigs and cattle. *Cabbages* and *onions* produce several crops a year, onions being largely exported. *Pumpkins* grow to great perfection, and the *pepinella*, a variety of cucumber, is extensively cultivated and is in season during the winter months. The principal leguminous plants are grown largely for local consumption, the chief being *haricot beans*, *peas*, *lentils*, and *garbanzo* (or chick-pea), which are articles of daily food among

the natives. Peas and beans, as well as cabbages and cauliflowers, are grown in the vineyards in winter after the vines have died down. Peas lose some of their flavour if the plants are not renewed from Europe at intervals.

Sugar-cane was introduced even earlier than the vine, and for a long time the production of sugar was the most important industry of the province. After the abolition of slavery it fell into decay, but regained importance after the vine disease of 1852. It now thrives chiefly owing to tariff protection, foreign sugar being penalised in Portugal by an *ad valorem* duty of 300 per cent., and the raw material in the island enjoying an artificial price of 16 *escudos* (about £3. 4s.) per ton delivered at the monopoly-holding company's mills as against an average price of 10s. per ton in the British colonies and 7s. in Cuba. These arrangements not only enhance the price of the prepared sugar to the consumer, but they furnish an incentive to the agriculturist to bring all available land under sugar-cane at the expense of other food-stuffs—a calamity for which Madeira paid dearly during the war. Sugar-cane is an exhausting crop, and little else can be grown with it; nor is the system of small holdings favourable to its development. In 1909 about 3,000 acres were devoted to this crop, but the area is understood to have increased greatly in subsequent years. In 1914 about 80,000 tons of cane were produced, of which about 55,000 tons were used in the manufacture of sugar. Besides the sugar extracted, half of which finds its market in Portugal, a certain amount of alcohol is distilled for use in fortifying the wine of Madeira.

The culture of the *vine*, which was originally introduced from Crete, dates from the fifteenth century both in Madeira and in Porto Santo. The best district for vines is in the south of Madeira, though they also

grow well in the neighbourhood of Seixal and San Vicente in the north. The prevalent vine is the Verdelho, three-quarters of the grapes produced in the island being of that species. Other varieties are the Malvasia (Malmsey), Bual, Sercial, and Tinta. Vines are grown for wine-making up to 1,500 feet; above that height the grape is only cultivated for eating. The best soils for viticulture are a mixture of red and yellow tufa, and also *cascalho* (a species of basalt in decomposition). Up to 1852 the industry was most prosperous, but in that year the vines were attacked and almost totally destroyed by a blight, the *Oidium tuckeri*. Measures were taken to combat this pest; hardier species of vine were introduced, and the old grape budded on to Californian stocks now yields the best wines. In 1873 phylloxera appeared in Madeira, though Porto Santo escaped entirely; it continued to be very destructive till 1883. Since then, however, the disease has been successfully combated, and the industry has been progressive. At present the chief menace to the vine-grower's prosperity is the decline of the popularity of Madeira wine. The annual output in Madeira itself is about 10,000–12,000 pipes¹; in Porto Santo about 800–1,000 pipes. The total area under vines has been computed at 4,200–5,000 acres.

Among other plants cultivated in Madeira may be mentioned *tobacco*, which grows well, but is not yet developed, though very promising experiments have been made; the *castor-oil plant* (*Ricinus communis*), which is widely spread; and *aloes*, which can be used for sisal hemp. *Samphire* grows wild in many places along the north coast, and a good pickle is made from this plant in Funchal. From *Maranta arundinacea* good *arrowroot* is produced, especially at Magdalena. The *osier* (*Salix viminalis*), which is thought to be indi-

¹ 1 pipe=92 imperial gallons.

genous, is easy to propagate, and grows freely on the banks of streams. It is used in the wickerwork industry of the island. Stripped osiers from Madeira are said to fetch the highest prices in the London markets. Corridors (*latadas*) for the vines are made with *reeds* that are grown for the purpose along the river banks. *Black wattle* flourishes luxuriantly, and might be used to replace mountain scrub or lupine; so far it has not been cultivated for commercial purposes.

Live-stock.—*Cattle-breeding* has never been very successful in Madeira itself, apparently because the water contains too little lime for the health of the calves. Porto Santo, however, where this deficiency does not obtain, is able to breed and to supply Madeira with all the mature animals required. The chief place for stock-farming in Madeira is Prazeres. Oxen are used for transport everywhere in the island, and the beef produced is good, the best being geranium-fed. The supply of milk has not been very plentiful, but efforts have been made to establish dairy-farming. Several dairies for the manufacture of butter have been started in various parts of the island, the chief being that of Burnay & Co. at Santa Cruz, a firm which shipped about 2,000 kilos a month to Lisbon in 1913. The export of butter has increased considerably of late years; in 1912 30,518 kilos were shipped to Portugal and in 1913 the figure rose to 40,695 kilos, with a still further increase in the following year.

Sheep are increasing in number; there are flocks on the hilly ground near Funchal; and the production of wool has become a minor industry, though the mutton is poor and little esteemed. *Horses* are used for riding, and are well cared for. The average horse in Madeira is quite a fair specimen, with a height of seldom more than 15 hands; as a rule the horses of the island are very docile, and not a few show signs of breed. *Donkeys*

are used for carrying burdens. *Goat's* milk is commonly drunk.

There is a certain amount of *poultry-farming*. Some years ago a demand arose in South Africa for eggs from Madeira, and a trade sprang up. In 1896 only about 30 tons were shipped, but by the following year the quantity had increased to over 500 tons. In 1912, however, the number of eggs shipped was only 255,000 (about 14 tons), and in 1913 and 1914 the quantity fell to less than one-twentieth of that figure.

(b) *Methods of Cultivation*

Agriculture in Madeira depends very largely on irrigation, as in summer little or no rain falls, and reservoirs have to be constructed on the higher elevations, where there are no springs. The water-supply is conducted to the fields by means of channels (*levadas*), descending by gentle gradients over a tortuous course sometimes 50 or 70 miles long. These are permanent stone structures, carved out where necessary from the solid rock. Where ravines have to be crossed, bridges are made, which maintain the necessary gradient, intervening hills being pierced by tunnels. One of these tunnels is 2,575 feet long, and carries its water-supply through a mountain at a height of nearly 3,000 feet above sea-level.

The *levadas* themselves are the property of corporations or of the Government. The distribution of water is regulated by an engineer assisted by an establishment subordinate to the Ministry of Public Works (*Fomento*) in Lisbon. The rights of individual cultivators are rigidly defined, and any encroachment upon them is jealously resented. The value of a property is largely determined by the extent to which its owner is entitled to use a *levada*. The system closely resembles that which, introduced by the Arabs, is still in use in

the irrigated regions of Valencia and other parts of southern Spain. Numerous as the *levadas* are, and notwithstanding the care devoted to their maintenance, a great deal of water still runs to waste in the mountain torrents of the island.

(c) *Forestry*

The island was originally clothed with laurel, and was so rich in timber as to derive its name (*Madeira* = wood) from the fact. But it was devastated by forest fires, said to have been started by the early settlers in order to clear a site for the town of Funchal. The fires are said to have lasted for seven years, and, when they had burnt out, the island was left almost as bare of trees as at the present day. On the higher lands a few conifers, chestnuts and oak trees are to be found. Several varieties of pine are cultivated for the sake of firewood, and planting has lately increased, as it has been found that pine forests pay better than badly cultivated land. From the laurel of the woods an oil is extracted. The small native juniper, used for cabinet-making and torches, is becoming extinct.

(d) *Land Tenure*

The customary tenure is known as *bemfeitoria*, and is closely allied to the French *métayer* system. The ownership (*senhoria*) both of the soil and of the water brought to irrigate it rests with the proprietor. The tenant owns all property, so far as it is the work of man, which is on or attached to the land. He is bound to keep all works in repair, and he may add to those in existence (except to build houses) at his own discretion. He is protected against eviction by his right to compensation on a scale which in case of dispute is interpreted, fixed and applied by official assessors. The greater the value of the improvements

effected, the better is the guarantee against expropriation.

The produce of the land is divided between landlord and tenant in such proportions as may be agreed upon; it is usually halved. The tenant must bear the burden of all necessary tillage operations, manuring, harvesting, and, in the case of a vineyard, pressing the grapes. He usually prefers, however, to grow as many vegetables as possible, since it is more difficult for the landlord to keep an eye on the progress of these and thus to make sure of his lawful share of the produce.

The system presents many pitfalls for the unwary, and land should not be rented on these terms by foreigners, who moreover are viewed with considerable jealousy by the native agriculturists.

(3) FISHERIES

About 250 varieties of marine fish, mainly European, are taken off the coasts of Madeira. The most important used to be the tunny. In 1909 a factory was erected for the salting and tinning of this fish, and a considerable trade ensued, but in 1914 the fish disappeared from Madeiran waters and the establishment had to close down. There is, however, an abundance of other fish which can be similarly treated, notably the horse-mackerel (*chicarro*) and sardine. The former of these is preserved and consumed as a sardine in Portugal. Fish is largely eaten in the island, and several varieties, caught and eaten fresh, are palatable and wholesome, the best being the sea-bream (*pargo*) and red mullet (*salmonete*). The *cherná*, a kind of cod, is sought after; and eels, the only fresh-water fish in Madeira, enjoy a certain repute. The octopus also is esteemed, as providing a nourishing soup. At the Selvagens there is an important fishery, specially in August.

(4) MINERALS

With the exception of an unimportant amount of iron ore at Ponta do Sol, there are no metals in Madeira. On Porto Santo there is a small bed of manganese, and there are rumours of the existence of quicksilver on the same island, but these have not been substantiated.

The basalt of Madeira (called *pedra viva*) furnishes good material for building. There is also a porous basalt, known as *cantaria rija*, which is used for making window- and door-frames; it is procured especially from Cape Girão. Near San Vicente, in the north of the island, is a limestone quarry; apart from this, all the lime used in Madeira is brought from Baixo Island (Ilhéu do Baixo), an islet south-west of Porto Santo. The lime-kilns are at San Lazaro.

Madeira is not endowed with mineral springs to the same extent as the Azores, but near Santo Antonio is a cold spring, the water of which contains some carbonate of iron, magnesia, and sodium chloride.

(5) MANUFACTURES

The most notable industry of Madeira is the manufacture of the famous wine that takes its name from the island. It is classified either as *vinho de canteiro* or as *vinho estufado*. The former grows old naturally in the vaults; the latter is kept at an artificial heat in a large heating-vat (*estufa*), where it matures very rapidly. The mellowing of the wine used to be brought about by taking it on a sea voyage.

The manufacture of sugar is an important industry; it is in the hands of an Englishman, who is bound in return for his monopoly to give a price of 16 *escudos* per ton for all cane that is brought to him. The British sugar factory has recently been improved and equipped with new machinery bought in the United Kingdom.

Embroidery is one of the most profitable industries of Madeira. There are two distinct classes of embroiderers in the island, the rural or occasional, and the professional workers. The former, estimated at 35,000, are to be found scattered over the south of the island, and in Porto Santo, where they make embroidery in the intervals of their domestic occupations. The latter, about 3,000 in number, are concentrated in Funchal and do the finest work; they also receive the highest wages—from tenpence to two shillings an hour according to their skill. The best products go to Germany and America. The trade was at its highest figure in 1911, when the exports were returned as 41,535 kilos; it fell in 1912 to 20,324 kilos, but by 1914 it had risen again to 33,683 kilos, the latest figure available. The export houses, as a rule, confine themselves to cutting out the pieces to be embroidered, stamping designs upon them, and giving the finishing touches to the work when they receive it back from the embroiderers, to whom it has been distributed by their travelling agents.

The making of wickerwork is another popular domestic industry. The osier (*Salix viminalis*), if not indigenous, was one of the earliest plants to be acclimatised, and it has acquired special characteristics which make it a very suitable material for this handicraft. Not more than half the osier grown is worked up; the rest is exported to Brazil, Cape Colony, and Great Britain, where it is made into furniture, costing far more than in Madeira. The manufacture of chairs, sofas, baskets, tables, etc. at one time employed some 700 workmen and their women and children, for the most part villagers of Camacha, about seven miles from Funchal. These people had no great originality of ideas, but confined themselves to copying catalogue designs. Seven business-houses were engaged in the export of these articles, 1911 being their best year,

with an export of 224 tons, valued at £18,000; in 1914 the export had fallen to 142 tons, valued at £13,740. A certain amount of this work, chiefly in the form of coarse baskets for coal-transport, packages for fruit, etc., is for local use, and may represent about £2,400 per annum.

There is a small trade in marqueterie, inlaid tables, trays, glove boxes, and other local souvenirs appealing to tourists, carried on by a group of craftsmen. The woods used are almost entirely indigenous, and, where they do not afford the desired variety of colours, they are stained artificially. The total value of this industry is under £2,400 per annum.

Another minor industry, which may become important, is tile-making. The *Empreza Industrial Madeirense* (Gonçalves & Co.) have established themselves both in Madeira and in the Azores, where they manufacture and sell roofing and flooring tiles, bricks, drain-pipes, and artistic pottery. The Portland cement which they use is imported.

Other industries are the manufacture of aerated waters, candles, soap, tobacco, paint, and chemical manures. There are near Funchal six flour-mills, five lime-kilns, and four saw-mills.

(6) POWER

Much water-power is available in the island. There are many waterfalls between San Vicente and Seixal along the north side. In the north-west of the island in the Rabaçal there are 25 waterfalls close to one another. The waterfall of the Risco is 330 feet high. There are many mills run by water-power.

(C) COMMERCE

(1) DOMESTIC

(a) Principal Branches of Trade

The island depends for most of its prosperity upon the attractions that it offers to tourists and invalids, and the chief branches of local trade are those which supply the needs of the foreign visitors. Hotel-keeping is probably the most important occupation, and other trades which cater for the tourists are those dealing in curios, basket-work, lace, embroidery, and fruit.

The capital is the only important focus of trade, the smaller towns (see p. 14) on the coast being little more than fishing villages. The peasant proprietors who have any produce to sell bring it down to Funchal in head loads or on sledges. There is, however, considerable coast-wise traffic between Funchal and the smaller ports (see p. 40).

(b) Organizations to promote Trade and Commerce

There is a Chamber of Commerce (Associação Commercial) at Funchal, and other institutions include the Camara Regional d'Agricultura and the Junta Agricola de Madeira, which are farmers' unions. The Junta Autonoma das Obras do Porto is a corporate body with powers of taxation over the local distilling of spirit, the proceeds of which are to be applied to the improvement of Funchal harbour.

(c) Foreign Interests

The connexion of Madeira with British trade is very long-established. Ever since the end of the seventeenth century the wine trade has been largely in the hands of British merchants, and there have been times when two-thirds of the wine merchants in the island were

British. Some of the most important firms to-day are of that nationality; for example, Blandy & Co. and Cossart, Gordon & Co. The latter were established as long ago as 1745. The British monopoly of the sugar trade has been already alluded to, and there are many other firms with British names connected with distilling, shipbuilders' repairing, chemical manures, lime, etc. Coaling has been in the hands of three British firms and one German, three-quarters of the coal of the German firm being British.

Although before the war British interests in Madeira had a much more promising outlook than German, Germany had made great progress. Among other things she had succeeded in capturing a very large share of the embroidery trade. A special drawback was conceded to Madeira embroidery worked on textiles of German origin. These were chiefly cotton, as linen for embroidery used to be imported by preference from Great Britain. At the outbreak of war the exporting houses at Funchal, which were about a dozen in number, included eight German concerns and one Swiss (Köller Frères), the last-named having a branch in Paris. Another stroke of German enterprise was the introduction of German motor-cars into the island, but here American and French competition deprived Germany of her initial advantage.

(d) *Methods of Economic Penetration*

The history of Madeira furnishes an instructive example of German methods of penetration. In March, 1903, Prince Frederick Charles von Hohenlohe succeeded in inducing the Government of Portugal to grant a concession for the establishment in Madeira of a vast sanatorium, casino, and hotel combined, under the management and control of a German company with unprecedentedly wide privileges. The institution was

to be allowed to import all its furniture and fittings duty free, although all the existing hotels, mostly British, had to pay in full for theirs; it was moreover to exercise the right of expropriating occupants of land and house property at will, and this right it at once proceeded to enforce against a British subject. A serious diplomatic situation arose in consequence, the Portuguese Government being simultaneously threatened from Berlin and London. It was discovered that the sanatorium was a mere mask, the casino being the main project, an establishment which should rival Monte Carlo; and no concealment was made of the German intention to drive the British out of the island. The Portuguese Cabinet, faced with the alternative of a breach with Great Britain or the repudiation of the concession, elected to cancel the latter and to pay compensation to the concessionaires. But the demands were so exorbitant that there was a public outcry in Lisbon against their being met. Finally Germany had to give way, and the casino remained untenanted.

(2) FOREIGN

(a) *Exports*

Quantities and Values.—The chief exports of Madeira are wine, sugar, dairy produce (eggs and butter), fruit, vegetables (especially potatoes and onions), lace work and embroidery, wickerwork furniture and raw material for wickerwork. The total value of the exports in 1913 was £185,260 and in 1914 £191,740.

The British Consular Reports do not show the values of the different commodities, and they are not very precise in other respects. For instance, the raw material for wickerwork is not separated from the manufactured articles, and no particulars are given as to the export of sugar.

The following table shows the quantities of some of the principal exports from Madeira in 1913 and 1914:

		1913	1914
Boots and Shoes ...	Pairs	730	195
Butter	Kilos	40,695	41,577
Eggs	Number	12,370	12,000
Embroidery ...	Kilos	25,256	33,683
Fruit, etc. ...	Tons	66	24
Onions	Tons	873	1,061
Potatoes	Tons	89	108
Tinned Fish ...	Kilos	238,770	29,668
Wickerwork ...	Tons	183	142
Wine	Pipes	8,150	7,472

Countries of Destination.—The principal recipients of the exports were Germany, with a considerable but decreasing predominance, Great Britain, France, and the United States. Portugal took a large proportion of the sugar exported, while France, Germany and Russia were usually the chief purchasers of Madeira wine. The following table¹ shows the share of the different countries in the exports in 1913 and 1914:

			1913	1914
			£	£
Brazil ... ..	...	...	5,356	3,541
France... ..	...	...	32,902	22,860
Germany ... ..	...	...	45,750	29,514
Italy ... ..	...	...	4,281	83
Russia ... ..	...	...	18,712	5,362
Spain ... ..	...	...	1,640	64,365
United Kingdom	...	...	25,700	28,048
United States...	...	...	25,182	24,521
Other Countries	...	...	25,737	13,446

(b) Imports

Quantities and Values.—The imports to Madeira (exclusive of those from Portugal) in 1913 amounted to £533,048 in value, and in 1914 to £506,627. The chief

¹ The *escudo* is converted at its nominal value, viz., 4s. 5½d.

articles imported are coal, food-stuffs, cereals (principally wheat and maize), tinned provisions, wines, textiles, cutlery, staves for wine-casks, motor-cars, and machinery and implements for the industries of the island.

Before the war the Portuguese Government laid it down that all the grain of the country must be exhausted before any foreign grain could be imported, and, even then, distribution was to take place under Government permit issued to registered millers and dealers, who were moreover forbidden to sell to one another. The quantity to be imported, and the rate of duty payable upon it, used to be fixed for the coming year in the August of the year before. When war broke out and Madeira became more or less isolated, these restrictions had to be abandoned, but they were removed too late to prevent famine.

The following table shows the quantities of the principal imports in 1913 and 1914:

				1913	1914
Candles	...	...	Tons	10	11
Cheese	...	...	"	21	14
Coal	...	...	"	143,228	61,452
Dry Goods	...	...	"	164	95
Lumber	...	...	Cub. ft.	68,796	not recorded
Maize	...	...	Tons	8,780	6,229
Paper	...	...	"	29	19
Petroleum	...	...	"	666	589
Rice	...	...	"	796	817
Salt Cod	...	...	"	362	198
Staves	...	...	Number	361,104	180,705
Sugar	...	...	Tons	661	620
Tea	...	...	Lb.	12,102	7,002
Tobacco	...	...	"	3,782	2,350
Wheat	...	...	Tons	8,520	7,484
Wine	...	...	Litres	194,410	184,489

Countries of Origin.—The recent British Consular Reports do not specify the proportion of the imports originating from Portugal. In 1909 Portugal supplied

goods to the value of £150,000, while imports from other countries amounted to £453,000. The chief articles imported from the United Kingdom and British Possessions are coal, cereals, tea, sugar, and barrel-staves; from Germany, tobacco, rice, tea, sugar, and motor-cars; from the Argentine, wheat and maize; and from the United States, cereals, lumber, and staves. The chief import from Portugal is wine.

The table below shows the share of the different countries (except Portugal) in the imports¹ in 1913 and 1914.

	1913	1914
	£	£
Argentine Republic ...	95,025	46,786
Belgium	148	11,666
France... ..	2,936	3,892
Germany	83,762	69,916
Italy	35	2,479
Netherlands	4,816	69,828
Spain	2,506	2,522
United Kingdom ...	250,723	223,676
United States... ..	18,403	25,567
Other Countries ...	74,694	50,295

(c) Customs and Tariffs

The customs tariff in force in Madeira is that of the mother-country, and comprises a list of 572 commodities, those on which an *ad valorem* duty is paid being taxed at rates which vary from two per cent. on staves for wine casks and three per cent. on hoops for the same, to 40 per cent. on musical instruments, ink and some other articles.

¹ The *escudo* is converted at its nominal value, viz., 4s. 5½d.

(D) FINANCE

(1) *Public Finance*

No separate information is available, because Madeira, like the Azores, is an integral part of Portugal, and its administration is centred in Lisbon.

(2) *Currency*

The currency is identical with that of Portugal, including the note-issues of the Bank of Portugal.

(3) *Banking*

The two Portuguese banks of the first rank in Madeira are the Bank of Portugal and the Banco Nacional Ultramarino. The Companhia Geral de Credito Predial Portuguez has an agency at Funchal, and the local directory shows six firms, English and Portuguese, which undertake banking transactions as part of their ordinary business.

(4) *Influence of Foreign Capital*

It has been already seen that foreign capital is of the utmost importance to the development of Madeira. British capital has maintained its ascendancy for many years, though Germany was making violent efforts to oust it.

(5) *Principal Fields of Investment*

The chief businesses of Madeira, such as the manufacture of wine, sugar, embroidery and wickerwork, have been already mentioned. Besides these it has been pointed out by French writers that there are considerable openings for dressmakers, and also for the introduction of a more elegant type of motor-car than the heavy machines hitherto supplied by English and German

agents. They recommend the establishment of a French commission agency to push the sale of wines, brandies, and Parisian novelties, and in return to find markets in France for Madeira wines. It has been suggested that flowers might be grown in Madeira, as in the Riviera, for the manufacture of perfumes.

(E) GENERAL REMARKS

Madeira is an island of great importance in many ways. From the point of view of trade it is most favourably situated at the crossing of the great Transatlantic routes, and the opening of the Panama Canal has done much to enhance its significance. It can be used as a port of call by vessels plying between Portugal and Brazil, Portugal and West, South, and East Africa, Gibraltar and Panama, Gibraltar and New York, and between British ports and West and South Africa.

Besides the advantages of its situation, Madeira owes much to its climate, through which it has won a recognized position as a health-resort. Its one real handicap is the inadequacy of Funchal as a port. The required improvements would be very expensive, but any considerable advance in the prosperity of the island largely depends upon their being made, and the expenditure, though heavy, ought to be remunerative.

AUTHORITIES

HISTORICAL

- ANDRADE CORVO, JOÃO DE. *Estudos sobre as Provincias Ultramarinas*. 4 vols. Lisbon, 1883-87.
Anuario Colonial de 1916. Lisbon, 1916.
- BROWN, A. SAMLER. *Madeira, the Canary Islands, and the Azores*. London, 1913.
- CARVALHO E VASCONCELLOS, ERNESTO J. DE. *As Colonias Portuguezas*. Lisbon, 1903.
- GOES, DAMIÃO DE. *Chronica do Principe Dom Joam (João II)*. Lisbon, 1567.
- JOHNSTON, Sir H. H. *The Colonization of Africa by Alien Races*. Cambridge, 1913.
- KOEBEL, W. H. *Madeira: old and new*. London, 1909.
- LINSCHOTEN, J. H. VAN. *Voyage...to the East Indies*: translated from the Dutch in 1598; reprinted and edited by A. C. Burnell and P. A. Tiele. 2 vols. Hakluyt Soc. London, 1885.
- MAJOR, R. H. *Discoveries of Prince Henry the Navigator and their results*. 2nd ed. London, 1877.
- WALKER, W. F. *The Azores*. London, 1886.

(See also the list of Authorities in *Portuguese Guinea*,
• No. 118 of this Series.)

ECONOMIC

- British Diplomatic and Consular Reports, Annual Series:
No. 5356. *Trade and Commerce of Madeira*, 1913.
No. 5486. " " " 1914.
No. 5300. " " *the Azores*, 1913.
No. 5492. " " " 1914.
- BIDDLE, A. J. DREXEL. *The Madeira Islands*. London, 1900.
— *The Land of the Wine: an Account of Madeira*. Philadelphia and San Francisco, 1901.
- BREUGNOT, MAURICE. *L'Île de Madère* (Bulletin de la Société de Géographie Commerciale, vol. xxxv). Paris, 1913.
- BROWN, A. SAMLER. *Madeira, the Canary Islands, and the Azores*. London, 1913.

- CHAVES, F. A. *Erupções submarinos nos Açores* (Archivo dos Açores, vol. XIII). Lisbon, 1904.
- CHOFFAT, PAUL, and RECLUS, ELISÉE. *Açores: a que parte do mundo deve pertencer* (Boletim da Sociedade de Geographia de Lisboa). Lisbon, 1902.
- KOEBEL, W. H. *Madeira: old and new*. London, 1909.
- MARVAUD, ANGEL. *Le Portugal insulaire*. Paris, 1909.
- SANTOS, VICTORINO JOSÉ DOS. *Industrias de Madeira*. Lisbon, 1907.
- TRIGO, ADRIANO and ANNIBAL A. *Guide and Plan of Funchal*. Funchal, 1910.
- WEBSTER, J. W. *A Ilha de São Miguel em 1821* (Archivo dos Açores, vol. XIII). Lisbon, 1904.

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TABLE OF CONTENTS

	PAGE
I. GEOGRAPHY PHYSICAL AND POLITICAL	
(1) Position and Area	1
(2) Surface and Coasts	1
(3) Climate	4
(4) Sanitary Conditions	5
(5) Race and Language	5
(6) Population	
Distribution	6
Towns and Villages	7
Movement	7
II. POLITICAL HISTORY	
Chronological Summary	8
History	8
III. SOCIAL AND POLITICAL CONDITIONS	
(1) Religious	10
(2) Political	10
(3) Educational	12
IV. ECONOMIC CONDITIONS	
(A) MEANS OF COMMUNICATION	
(1) Internal	
(a) Roads and Paths	13
(b) Posts and Telegraphs	13
(2) External	
(a) Ports	
Accommodation	14
Nature and Volume of Trade	17
(b) Shipping Lines	18
(c) Cable and Wireless Communications	18

	PAGE
IV. ECONOMIC CONDITIONS (<i>contd.</i>)	
(B) INDUSTRY	
(1) Labour	19
(2) Agriculture	
(a) Products of Commercial Value	
Vegetable Products	21
Live-stock	24
(b) Methods of Cultivation and Irrigation .	25
(c) Forestry	25
(d) Land Tenure; Profit-sharing Systems .	25
(3) Fisheries	27
(4) Minerals	28
(5) Manufactures	29
(C) COMMERCE	
(1) Domestic	
(a) Organizations to promote Trade and Commerce	31
(b) Foreign Interests	31
(2) Foreign	
(a) Exports	32
(b) Imports	32
(c) Customs and Tariffs	33
(D) FINANCE	
(1) Public Finance	34
(2) Currency	35
(3) Banking	35
(4) Foreign Capital	37
(E) GENERAL REMARKS	37

Cape Verde Is.] TABLE OF CONTENTS

	PAGE
APPENDIX	
Table I. Values of Imports and Exports, 1911 and 1912	39
,, II. Imports and Exports showing Countries of Origin or Destination, 1911 and 1912	40
,, III. Chief Heads of Revenue and Expendi- ture, 1908-09 to 1913-14	41
AUTHORITIES	42

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND AREA

THIS archipelago, which belongs to Portugal, lies 250 miles west of Cape Verde between $14^{\circ} 47'$ and $17^{\circ} 13'$ north latitude and $22^{\circ} 40'$ and $25^{\circ} 22'$ west longitude, and consists of 14 islands and islets, which lie in two converging lines, from west-north-west to east-south-east and from west-south-west to east-north-east. The former, the Windward (Barlavento) Islands, comprise Santo Antão, San Vicente, Santa Luzia, Branco, Razo, San Nicolau, Sal and Boa Vista; the latter, the Leeward (Sotavento) Islands, comprise Brava, the Rombo Islands, Fogo, San Thiago and Maio. Their total land area is about 1,475 square miles. Between Boa Vista and Maio lies the submerged reef, Baixo de João Valente or Leitão, 17 miles long by 9 broad.

(2) SURFACE AND COASTS

The islands are all volcanic in origin and are generally arid, except in the river valleys, where there is luxuriant vegetation, especially during the rainy season. Only Fogo, however, contains an active volcano. The three islands nearest to Africa—Sal, Boa Vista and Maio—are the most barren, and their desert-like characteristics are shared by the southern side of some of the other islands, such as Santo Antão. The islands are all mountainous, and the coasts are indented. The bulk of the level ground is in Sal and Boa Vista.

Santo Antão, which has an area of 266 square miles, is the most north-westerly of the islands and is rugged

and mountainous. In the south-west is a volcanic plateau about 5,000 ft. high, and a range of mountains extends east-north-east across the island, the northern side of which is well watered and fertile.

San Vicente, which has an area of 84 square miles, is triangular in shape, the sides being composed of volcanic ranges. The highest point is Monte Verde (2,483 ft.), in the north-east. On the north-west side is the bay of Porto Grande. The interior of the island is occupied by the wide valley of the Ribeira Julião, which flows into the Porto Grande. The harbour of Mindello, on the Porto Grande, is an important coaling station.

Santa Luzia has an area of 10 square miles. The principal range of hills runs north-west and south-east, the highest points being Monte Grande (1,209 ft.) and Monte Creoulo. The coast is mostly high and unapproachable, but there is a good harbour on the south-west.

Branco is a small waterless uninhabited island two miles long and half a mile broad.

Razo (or *Rodonda*), three miles farther south-east, is five miles in circuit. Both these islands have inaccessible coasts.

San Nicolau has an area of 134 square miles. It is of an irregular shape, with a narrow projection 14 miles long extending east of the mountain-core, with a short range radiating to the south. In the centre of the island is a volcanic mass of which the highest point is Monte Gordo (about 4,369 ft.). North of Monte Gordo are the two steep pyramidal cones of Monte Martinez (about 4,000 ft.). The coast is rocky, especially on the north side; it contains several bays. *San Nicolau* is more fertile than the islands previously mentioned.

Sal, which has an area of 86 square miles, is mainly flat with detached cones in the north, of which the

chief is Monte Grande (1,340 ft.). Most of the surface is stony and desert. There are many small harbours along all the shores, which render any part of the island accessible.

Boa Vista, with an area of 235 square miles, resembles Sal in its general characteristics, but is less flat. A range of volcanic hills, the Serra do Norte, runs north and south, dividing the island into two nearly equal parts; on each side are isolated hills parted by valleys. The range terminates with the Pico d'Estancia (about 1,235 ft.). The island during the dry season is an arid waste. The shores consist of sandy beaches with rocky points between them. The west coast has three anchorages, the best being the port of Sal Rei.

Maio is 50 miles south of Boa Vista, and has an area of 82 square miles. It is similar to the last two islands in possessing level and sterile tracts of country, and produces a large amount of salt. On the north-east and east sides is a range of hills rising to about 1,200 ft. The coast on this side is mostly rocky, but the other sides are low and sandy. Water is very scarce.

San Thiago, with an area of 358 square miles, is the largest and most populous of the islands. Three ranges of volcanic mountains cross the island from east to west and are separated by plains of varying width. In the south is the long ridge of Malagueta (about 4,000 ft. high), and still farther south is the elevated plateau of the Achada Falcão, which terminates with the Pico Antonia (about 4,500 ft.). The island contains numerous ravines with perennial streams. The east side is cliffy with many indentations; the west is partly sandy and partly rocky.

Fogo has an area of 187 square miles. It is nearly circular and consists principally of the great stratified volcano, Pico do Cano, the highest summit of the Cape Verde Islands and the only active volcano in the

group (about 8,800 ft.). Its cone stands upon a level surface, the Chão, itself 5,000 ft. high. The north side of the island, which is damp and cold, is fertile, but the south is hot and dry, and the only vegetation is found near the few springs.

Brava has an area of 22 square miles. It is very mountainous and has many high peaks, the loftiest of which is Fontainhas (3,609 ft.). Though sterile in some parts, it is nevertheless the most cultivated of the islands. The shores are rocky and precipitous, but there are safe landings at several points.

North-east of *Brava* are the *Rombos*, two small islands, each three miles round, of which the *Ilha de Dentro* is used as a shelter for whaling and fishing vessels, and as pasturage for cattle, while the *Ilha de Fora* supplies much guano.

(3) CLIMATE

The dominant factor in the climate of these islands is the prevalence of the trade-winds from the north-east and east from November to July. The *harmattan*, a wind from the African desert, blows from November to February, and indeed in most months except August and September. The rainy season is August, September and October, with winds from south-east to south-west; the temperature then increases and there is great humidity and constant rain. The rainfall is very unevenly distributed among the islands, and the eastern islands suffer much from lack of rain.

The only places where regular meteorological observations are made are Mindello (in San Vicente) and Praia (in San Thiago). At the former the average temperature is 75° F. (24° C.), the mean maximum temperature is 79° F. (26° C.), the mean minimum 68° F. (20° C.); at the latter the average temperature is 77° F. (25° C.), the mean maximum 82° F. (28° C.), the mean minimum

70° F. (21° C.). The average rainfall at Mindello is 7·5 ins. (19 cm.), at Praia 10·9 ins. (27·7 cm.).

(4) SANITARY CONDITIONS

The conditions in the various islands differ considerably, though on the whole the group is healthy, Santo Antão probably being the healthiest. At Porto Grande, in San Vicente, a mild fever exists at certain seasons, which attacks the natives after the rains in September, and Europeans during the *harmattan*. Special causes have also led to the spread of tuberculosis.

The unhealthy season in the archipelago is the rainy period; the chief complaints then are dysentery and remittent fevers. Periods of drought are followed by various epidemics. Since 1854 there has been no yellow fever, but a mosquito (*stegomyia*) that can carry the germ is common in the islands, so that infection would be likely to spread rapidly if the disease reappeared. Another great agent for disseminating diseases is the *pulex penetrans*, which came over from Guinea towards the end of last century and is very common.

Of other diseases malaria is rife, but its virulence has been greatly reduced. Leprosy is common on Santo Antão; elephantiasis is found especially on San Thiago, and syphilis especially on San Vicente. Biliosa, the form of bilious remittent fever so much dreaded in the other Portuguese West African colonies, is found only in and around Praia, where it is ascribed to local insanitary conditions.

(5) RACE AND LANGUAGE

When discovered these islands were uninhabited, but they are now populated by white men, negroes, and mulattoes. The whites form a very small proportion, the Portuguese themselves being only one-twentieth of the entire population. The majority of

the population are descendants of slaves from Guinea, and are either blacks or, to a still greater extent, mulattoes. There is also a Jewish strain in the islands; and the inhabitants of Fogo, though claiming Spanish descent, are mainly negroes.

Great differences are noticeable between the inhabitants of the various islands, determined partly by geographical conditions, partly by occupation, and partly by the extent to which there has been fusion of the different racial elements. The intermarriage of the mulattoes among themselves or with whites has led to the evolution of a definite island type. The Cabo-Verdeans are as a rule taller than the average Portuguese. They have fine physique and are often long-lived, this being especially true of the inhabitants of parts of San Nicolau; the nose has a tendency to be aquiline and the lips are not thicker than those of many Europeans.

The language of the islands is a bastard Portuguese, called Creole (*lingua creoula*), a combination of Portuguese and African elements, mixed with some French and English words. The dialect of Brava more than any other resembles correct Portuguese.

(6) POPULATION

Distribution

In 1916 the total population was estimated at 149,793, of whom 69,001 were men, and 80,792 women. Of these 5,032 were white, 54,662 were negroes, and 90,099 were mulattoes. A recent estimate gave 295 as the number of foreigners, who are principally British engaged in the coaling and telegraph businesses at Mindello.

The figures of the census of 1913 give the population of the various islands as follows:—

	Population	Density per square mile
Santo Antão	33,724	127
San Vicente	10,491	125
San Nicolau	12,041	90
Sal	579	7
Boa Vista	2,823	12
Maio	1,867	23
San Thiago	59,222	165
Fogo	17,800	95
Brava	9,207	418
	<hr/> 147,754	

The density for the whole group is about 100 to the square mile. Santa Luzia, Branco, Razo and the Rombos are uninhabited.

Towns and Villages

The *Anuario Colonial* (1916) says that there are in the Cape Verde Islands seven cities and towns, and 345 villages. The most important town is *Mindello* (pop. 8,500) on the Porto Grande in San Vicente, which has been a great coaling station since 1851 and is also a cable centre. *Praia* on San Thiago (pop. 4,000) is the present capital. It has a fine harbour, second only to that of Mindello. The other chief towns are *San Filipe* (pop. between 3,000 and 5,000) in Fogo; *Ribeira Grande* (pop. 4,500) in Santo Antão; *Ribeira Brava* (pop. 4,000) in San Nicolau, which does a considerable coasting trade; *Nossa Senhora da Luz* (or English Road) in Maio, with a good harbour; and *Sal Rei* (pop. 1,000) in Boa Vista near extensive salt-pans.

Movement

The population is increasing slowly. The figures for 1911, 1912, 1913 and 1916 are respectively 142,479, 143,929, 147,754 and 149,793. There is considerable emigration. Though life is hard for the natives, they appear to multiply very rapidly.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- c. 1445 to 1462. Discovery of the southern islands.
- 1462. Donation of the islands to Dom Fernando.
- c. 1463. Discovery of the northern islands.
- 1490. Colonization of Boa Vista and Maio.
- 1503. Colonization of Fogo.
- 1532. Ribeira Grande becomes a bishopric.
- 1585 and 1592. Sir Francis Drake sacks Ribeira Grande.
- 1598 and 1625. Attacks by the Dutch.
- 1614. Praia becomes the capital.
- 1712. The French sack Ribeira Grande, Praia, and Santo Antão.
- 1831. Ribeira Grande sacked by the Miguelists.
- 1838. Mindello (St Vincent) founded.
- 1879. Separation of Portuguese Guinea from Cape Verde Islands colony.

HISTORY

Both the date of the discovery of these islands and the name of their discoverer are subjects of hot dispute. The Genoese Antonio de Noli seems to have been driven by a storm to the southerly island, San Thiago, in one of the years following the discovery of Cape Verde itself by Dinis Dias in 1445, but whether his companion was a Portuguese, Diogo Gomes, or a Venetian named Cadamosto, remains uncertain. The discovery of this, the southerly group of islands, consisting of San Thiago, Maio, and Fogo (then called São Philippe), must be set at latest in 1462, for in that year they, as well as the eastern group, were bestowed by King Afonso upon his brother Dom Fernando.

Soon afterwards Diogo Afonso, sent out by Dom Fernando, discovered the remaining islands, i.e. those of the northern group, Santo Antão, San Vicente, San Nicolau and Santa Luzia. Afterwards (1489) on the death of Dom Fernando the reigning king João II gave all the islands to the Duke of Beja. Boa Vista and Maio were colonized in 1490, and Fogo in 1503.

The colonists settled by the noblemen to whom the islands were granted carried on the cultivation by means of slaves, who were easily obtained from the neighbouring coast of Africa. San Thiago was the most important and most prosperous of the islands. It was divided into two Capitánias, of which the southern was the more important. Its capital, Ribeira Grande, became the principal town in the whole group. It was created a bishopric in 1532, and its wealth attracted raiders in the period of the wars with England and Holland in which Portugal was involved by the Spanish connexion. The English (under Drake) sacked it in 1585, and again in 1592; the Dutch attacked it unsuccessfully in 1598 and 1625. During the wars of the Spanish Succession, when Portugal was allied with England, a French fleet again sacked Ribeira Grande as well as Praia and Santo Antão in 1712 (the year after Rio de Janeiro had been taken by Duguay-Trouin). During the Miguelist war of 1828–35 Ribeira Grande took the part of Dom Pedro and the young queen Maria II, and was sacked by the supporters of Dom Miguel in 1831.

In modern times, owing to its excellent harbour, the island of San Vicente (St Vincent) has become very important. In 1838 the “City of Mindello” was founded on this harbour and given by Royal Decree the position of capital of the whole archipelago. It is usually known as St Vincent. At present, however, the capital is again Praia, in the island of San Thiago, which had first been made the capital in 1614.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE great mass of the population, whether white or of negro origin, belongs at least in name to the Roman Catholic Church, although undoubtedly many of the primitive beliefs of the coloured population continue to exist without much disguise. The bishopric established at Ribeira Grande in 1532, still exists with its headquarters at Ribeira Brava in the island of San Nicolau. The Church here as elsewhere in the Portuguese colonies has been disestablished since the constitution of the Republic. A seminary has been hitherto maintained in the island of San Nicolau in connexion with the bishopric.

(2) POLITICAL

The archipelago forms a single overseas province and administrative district, and the Governor holds the relative rank of General of Division. He is aided by two councils—the governing council, of which he himself is president; and the provincial council, presided over by the general secretary (corresponding to the colonial secretary in a British colony). The former council is composed of the bishop or, in his absence, of the superior ecclesiastical authority at the capital, the colonial secretary, and the heads of the different departments, civil and military, including the municipal president and two representative rate-payers. The latter council is comparatively non-official in composition, and includes a deputy for the southern group of islands and

a representative from San Vicente (one of the northern group).

The powers of the Governor are limited as follows:

He may not, even when supported by the votes of his governing council, alter the organic laws of the colony, or legislate against the civil or political rights of the colonists; nor may he modify the limits of the colony, alienate the ownership or use of any part of it to foreigners, or declare war or conclude peace. He may not concede rights of sovereignty, modify, postpone, or disobey the decisions of the tribunals civil, military, or administrative; suspend judges from pay or office; pardon, reduce, or commute penalties, or grant amnesties except to natives in accordance with the terms prescribed by law.

Outside these limits, he may in council perform all functions deemed of advantage to the interests of the colony, whose autonomy in such matters is a wide one.

The Province is divided into seven circles (*concelhos*) of the first class, and two of the second, each circle being subdivided into parishes (*freguezias*). The seven first-class *concelhos* are Santo Antão, San Vicente, San Nicolau, San Thiago (southern part), San Thiago (northern part), Fogo, and Brava; the two second-class are Sal and Boa Vista. Their councils are formed of representatives of the municipalities and are presided over by administrators appointed by the Governor.

Civil and criminal justice is administered by tribunals of the first instance sitting at Praia with jurisdiction over the islands of the southern group, and at Mindello for the islands of San Vicente, San Nicolau, Boa Vista and Sal. Since 1901 a third court with the same powers has been sitting at Maria Pia in the island of Santo Antão, the congestion of work at San Vicente (Mindello) having proved too great for efficiency. Appellate and revisional

jurisdiction is exercised by the High Court (Tribunal de Relação) at Lisbon.

The Government is still carried on under the decree of 1892, as it is considered that the Cape Verde Archipelago is not as yet sufficiently developed to make it advisable to apply the new system of the "Organic Laws of the Ultramarine Provinces" which was approved by Congress in 1914.

(3) EDUCATIONAL

For primary education a school is maintained in every parish in the islands, some of the schools being for boys only, and some for both sexes. No data are available concerning the number of children attending the schools. The seminary in San Nicolau seems still to be the principal secondary school in the group, but its future is uncertain. It is proposed to convert it either into a lyceum or into a technical school. Practical education in trades and handicrafts was introduced by the Decree of Jan. 18, 1906, by which schools were established for instruction in pilotage, seacraft and fish-curing; in carpentry, stone-cutting, masonry, iron-work, ship-building, smelting etc.; also in tailoring and shoemaking. A system of apprenticeship is carried out in these schools. The schools dealing with maritime employments are under the maritime delegate or the Port Captain when he is stationed at San Vicente (Mindello), the principal port. The other schools are under the Director of Public Works.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads and Paths*

METALLED roads are confined to certain of the towns, beyond the limits of which they are continued by cart-tracks. These latter, however, are few and bad, and bridle-tracks, which generally follow the dry beds of streams, form the chief routes to the rural districts. The traffic of the islands is very slight, and the roads, being poorly made, are constantly liable to destruction by winter storms. In 1914 there were in the islands 144 miles of road completed, five under construction, and seventeen projected. The chief roads are in San Thiago from Praia to Tarrafal (31 miles); in Fogo from San Filipe to Mosteiros (25 miles) and from San Filipe to Cova Figueira (20 miles); in San Vicente from Mindello to Monte Viana (11 miles), and in Santo Antão from Ponte do Sul to Paul (8 miles), and from Porto dos Carvoeiros to Ribeira Grande (6 miles).

As in most parts of the islands vegetation is scanty and the soil arid, the rider or foot-passenger is independent of roads and can move freely in any direction, hampered only by the scoriae and loose stones on some of the steeper slopes.

(b) *Posts and Telegraphs*

The postal service is administered from the capital, Praia. There is a general post-office in the chief town of each island except Boa Vista, Sal, and Maio, where the Collector of Customs performs the duties of post-

master. In Santo Antão and San Thiago there are more extended services, the former having seven village sub-offices, and the latter a main office at Tarrafal with two sub-offices dependent upon it, while the general post-office at Praia controls six sub-offices in the district which it serves. The island of Fogo also possesses two sub-offices, besides the central office at the chief town, San Filipe. Foreign mails enter and leave through San Vicente and Praia, the latter being the port of transshipment for such mails to and from Portuguese Guinea as have missed the monthly steamer running direct from Lisbon to Bolama.

The island of San Thiago alone possesses an internal postal telegraph system. Praia and San Vicente are united telegraphically by means of the submarine cable of the West African Telegraph Company.

(2) EXTERNAL

(a) Ports

Accommodation.—There are at present two ports of general call for Portuguese and foreign vessels, viz., Mindello or Porto Grande, in the island of San Vicente, and Praia, in the island of San Thiago.

Mindello, on the north-west side of San Vicente, is a coaling station used by vessels of war and merchantmen of all nations. The bay has an entrance two miles wide and penetrates inland for one and a half miles. Between the points of entrance there is an even bottom of 22 fathoms, shoaling on the west side to nine fathoms at three-quarters of a cable from the shore. There is ample anchorage on hard sand, and the harbour is sheltered by lofty hills, though when a north-east wind is blowing there are often sudden squalls. In the centre of the bay the depth of water is 10 fathoms, but alongside the wharves 8 feet only. The piers, which are ten

in number, are accessible only to lighters, by means of which discharge is therefore effected. Boat-sailing is at times dangerous, the bay being liable to heavy gusts off the high land and infested with sharks.

Outside, seven cables north-west from Ponta de João Ribeiro, the northern horn of the bay, is the Ilhéu dos Passaros, a conical islet with a lighthouse at the upper end of an enclosure, the whitewashed walls of which stretch up half the slope of the hillside in the form of a gigantic cross. This walled-in space is visible far out at sea, and thus serves as a landmark easily recognised at night or in misty weather when the island of San Vicente is itself hidden. The light is a white fixed one, 306 feet above high water, and is said to be visible for 25 miles.

Both water and coal are obtainable at Mindello. There is a floating tank to hold 100,000 gallons of water, but the supply is scanty, as it has to be brought by steamer from the neighbouring island of Santo Antão, the local water being not only limited in quantity but so brackish as to be almost undrinkable. The prices charged, moreover, are so high that commanders of vessels find it cheaper to distil their own water. More than 34,000 tons of Welsh coal are usually kept in stock, and of these 5,000 are always kept ready in lighters. The price for coal is very high in comparison with that current in the Canaries.

The port has a quarantine establishment, with a landing-pier of its own, and accommodation for about 50 people.

Praia is the capital of the Cape Verde Islands. It is on the southern coast of San Thiago, and has an open bay, with an entrance $1\frac{1}{2}$ miles wide. Anchorage is safe for vessels of any size between December and June inclusive, but not for sailing vessels during the rains, as the wind is then apt to blow onshore from the south

with a short sea and heavy swell. On Ponta Temerosa, the western limit of the bay, is a fixed white light at a height of 85 feet, visible in clear weather for 15 miles. There is a lazaretto beside it, and a life-saving rocket apparatus has recently been established. Several patches of shoal-water lie in and around the approaches to the bay, but good holding-ground of volcanic sand at a depth of 8 fathoms is to be found abreast of the Ilhéu de Santa Maria, or Quail Island, inside the port. On Quail Island there used to be a stock of about 1,500 tons of coal available for shipping, some being always kept on lighters for urgent requirements, but Lloyd's Register for 1916-17 contains a warning that this arrangement is no longer to be relied upon. Proposals have been made in Lisbon to extend the coaling depot by connecting the islet and the shore by means of a sea-wall. Good water may be obtained from a floating tank.

A third port, deserving of recognition if the claims set up on its behalf by Portuguese publicists have any validity, is *Tarrafal*, in San Thiago. This port is mainly interesting on account of the attention it received from the Lisbon press in 1911-12, when the Agadir incident and the visit of a German cruiser to the Tagus had aroused uneasiness about the safety of the Portuguese African Colonies. The theory was that it formed the apex of a great strategical triangle, the other angles being occupied by San Miguel in the Azores and Lagos-Portimão in Algarve, southern Portugal. The seas contained in this triangle were to be policed by the fleets of Great Britain and Portugal in co-operation; and it was deemed essential that all three points should be coaling stations, whereas only one, San Miguel, had as yet been equipped for that purpose. From the British Consular Report for 1913 it appears that some steps have been taken to raise the port of Tarrafal to

the desired level. It is of much smaller dimensions than Mindello or Praia.

Nature and Volume of Trade.—The carrying trade between Portugal and the West African colonial ports having been ruled by Portuguese judicial authority to be a coasting trade (*cabotage*), and therefore closed to all vessels save those flying the national flag, a large portion of the imports and a still larger portion of the exports pass through Lisbon, even when that is not the place of their real origin or destination. Owing, however, to the special circumstances of trade in these islands the exclusion of the foreigner is not as complete as in the Portuguese colonies farther south.

In 1913 the ships that entered and cleared in the ports of the archipelago numbered 3,402; of these 1,414 were steamships and 1,988 sailing vessels, while 1,968 were engaged in coasting trade. The tonnage was 4,239,532. Recently there has been a decrease in the number of ships that have entered and cleared, but an increase in their tonnage. The trade of Mindello consists largely of re-exportation to other islands, and the port still retains some importance as a coaling station; though the high price of coal there and other circumstances have combined to reduce this. Steamers from North America to Australia, China and Japan are the only ones that take great quantities of coal at Mindello. German, Italian and French steamers have given up calling there for coal and go instead to Dakar and the Canaries. Praia is a regular port of call for the Portuguese mail-boats, but has no other importance. The figures for 1915 show one steamer entered from Buenos Aires with cargo and cleared in ballast for Senegal, and one small sailing vessel to and from the United States, the total tonnage being under 5,000 tons. The agricultural exports from the Santa Catarina district of San Thiago pass through Tarrafal.

(b) Shipping Lines

The Empresa Nacional de Navegação, reconstructed in 1918 under the style of the Companhia Nacional de Navegação, is a Lisbon shipping company, which holds the virtual monopoly of the Portuguese West African trade south of Madeira. The company has a regular mail and cargo service to the Cape Verde Islands. Its steamers make the voyage three times a month, those sailing on the 7th and 22nd of each month continuing to the ports of Angola, while the third, which sails on the 14th, continues to Guinea.

Of British lines, the two that have most concern with the Cape Verde Islands are the amalgamated lines, the Royal Mail Steam Packet Company and the Pacific Steam Navigation Company. Ships of the former sail once a month from Liverpool, of the latter once a fortnight from Southampton. The Royal Mail steamers touch at Mindello for postal purposes, those of the Pacific Steam Navigation Co. for coal.

(c) Cable and Wireless Communications

Cables run from San Vicente to Fayal in the Azores and to Madeira, and thence to Porthcurno (England) and Carcavellos (Portugal). Southward there are lines to Pernambuco and other Brazilian ports, and *via* Ascension and St Helena to Cape Town; from Ascension a line branches to the River Plate. The connexion with Praia on San Thiago is extended to Bathurst (Gambia) and Freetown (Sierra Leone); at busy hours of the day Praia is cut off, and the line worked through to Freetown. At San Vicente the staff, controlled by the West African Telegraph Company, numbers 100 and is always in attendance, whereas at Praia only one European superintendent and two native assistants are employed. All the foreign work is therefore done through San Vicente.

Communication with Portuguese Guinea is maintained through Bathurst by means of two short cables to Bissau and Bolama, controlled by the African Direct Telegraph Company.

A wireless station has been established in San Vicente and in 1918 was reported to be in actual operation.

(B) INDUSTRY

(1) LABOUR

The Cape Verde Islands stand alone among the colonies of Portugal in having no special or exceptional laws, the general code of the mother-country meeting all requirements. The supply of labour is abundant, women working as well as men. Labour is quite free from administrative control, and is only subject to the general principle laid down in the constitution of the Portuguese Republic, namely, that in return for the protection afforded him by the State, the citizen is legally and morally bound to earn his living by work.

The ordinary rate of wages in the islands for unskilled labour is 1s. 5½d. per day for men, 10d. for women; at the coaling ports the men are paid on the piece-work system and are able to earn considerably more. The Cabo-Verdean is free alike from conscription and corvée, the Government engaging its workmen in the open labour market. The low rate of wages paid to the agricultural labourer may be supplemented by the profits of co-partnership arrangements (see pp. 26, 27).

Lack of work and lack of food, however, induce a large number of the inhabitants to emigrate, either under contract to San Thomé and Príncipe, or on their own account to other parts of the world. In the former case they are invited to contract for fixed periods of one to three years, with passage paid both ways. In

Principe they have rendered especially good service, for before the extinction of sleeping sickness they showed unusual powers of resistance to that scourge, and, undeterred by the risk of infection, often re-engaged for a second and even a third period of work. In 1915-16 about 800 new recruits from the Cape Verde Islands went to Principe, taking the place of an almost identical number of time-expired labourers who returned to the archipelago.

As a free emigrant the Cabo-Verdean settles in many parts of the world, some of which offer by no means the most promising prospect. During 1914 there were 3,648 emigrants (2,851 men, 797 women). Of these 1,610 went to North America, 57 to Brazil, 77 to other parts of South America, 24 to Europe, and the rest chiefly to Portuguese colonies. In North America Cabo-Verdeans are to be found chiefly in the New England States, especially New Bedford and Providence, to the former of which 1,066 emigrants went from these islands in 1912. In New England and in Angola they work as fishermen; in British Guiana and in Portuguese Guinea they find profitable occupation as small traders; in the Sandwich Islands and in San Thomé and Principe they are known as somewhat turbulent but industrious estate labourers or overseers of native labour; while in Principe they play a prominent part in the local police force. The Argentine navy employs Cabo-Verdeans largely as seamen, and in that service they frequently rise to the grade of petty officer. The sea is adopted as a profession by many men from Brava, an island from which the inhabitants emigrate freely.

Emigration from Portugal is discouraged; but the Portuguese authorities seem to agree that emigration confers distinct advantages on these islands, both through the experience that the emigrants gather abroad and from the money that they bring or send

back. Wherever they go, it appears that the Cabo-Verdeans work hard, make and save money and send steady remittances home; the postmaster of Brava reports that not a single letter arrives from an emigrant for his family that does not contain a remittance of some amount up to twenty dollars. When circumstances permit, they return to the islands, buy land and build a house.

The total number of emigrants from seven of the Cape Verde Islands, exclusive of the *serviçaes* or indentured labourers in San Thomé and Príncipe, between the years 1900 and 1910 was as follows:—

Brava	3,078
Fogo	1,740
San Thiago	2,549
San Vicente	723
Santo Antão	187
San Nicolau	399
Boa Vista	16

(2) AGRICULTURE

(a) *Products of Commercial Value*

Vegetable Products.—The islands differ considerably in their degrees of fertility, the chief centres of agriculture being, among the northern islands, Santo Antão and San Nicolau, among the southern, Fogo and Brava.

Coconuts grow on many of the islands; the fruit is neither large nor abundant, but it is especially esteemed on islands such as Maio and Boa Vista, which have a poor water supply.

Coffee is the chief export, and Cape Verde coffee fetches higher prices in the Lisbon markets than any other of the West African kinds. It is indeed so rich in caffen that many consumers prefer not to use it

unmixed. With three or four times its own weight of a milder coffee, it is quite strong enough for the average palate. The cultivation of coffee might be much developed, but under the present system of small producers it is impossible to grow enough for the foreign market. Coffee is cultivated especially on Santo Antão, Fogo, and San Thiago.

Cotton has been successfully grown, and a good sample of it has been sent from Santo Antão. In the island of San Nicolau it is woven into coarse cloth for local requirements.

Fibres. The *piteira* or Mexican aloe (*Agave mexicana*) is a very common plant, as might be expected from the aridity of most of the islands. A fair supply of fibre for making cordage etc. is obtained from this and from the coconut palm. The growth of *sisal*, with which a beginning has been made, is not likely to be very successful, as it needs more water.

Fruit and Vegetables. *Beans*, *sweet potatoes*, and other European and tropical vegetables are grown on some of the islands. *Bananas* grow well on certain islands, and *pumpkins* are successful. *Orange* growing might be developed, the oranges of Brava and Fogo being reputed the finest in the world; on Santo Antão an orange wine is produced. *Pawpaws* grow on most of the islands, but only on Brava to any considerable extent. *Pineapples* do very well on Fogo, Brava, and San Thiago. *Grapes* are grown, but more for eating than for making wine. *Apples*, *pears*, *plums*, *peaches*, and *strawberries* are cultivated on a small scale, and *figs*, *breadfruit*, *tangerines*, *mangoes*, and *lemons* on a large scale. *Date palms* are little grown, but their cultivation could probably be developed.

Indigo is grown on San Vicente and Fogo.

Maize is grown, but under difficulties. In good years the surplus crop is exported, but in years of drought

considerable quantities are imported from Mozambique and elsewhere, as this grain is the chief constituent in the islanders' dietary.

Purqueira (sometimes incorrectly described in the reports on the islands as castor-oil) is an important product. The plant bears numerous oily seeds which are bought up by the União Fabril of Lisbon and by other Portuguese refineries for treatment and ultimate use as a lubricant or in soap-making. A good deal also goes to the Marseilles market. The residue after the oil has been extracted forms an excellent manure for poor lands, a fact which furnishes a good reason for treating the seeds, as far as possible, in the islands themselves. The esteem in which *purqueira* is held in the Cape Verde Islands contrasts with the neglect it suffers in British India, where it is regarded as a troublesome weed. In the Cape Verde Islands it has to be protected by special regulations, as the wood is good for fuel and therefore liable to be cut down by the inhabitants. The plant grows here better than in America. The true castor-oil plant (*Ricinus communis*) is also to be found but has never attained the same importance for export purposes.

Sugar-cane is cultivated in San Thiago and Santo Antão, and on a smaller scale in San Nicolau and Brava. It is grown not only for its sugar, which is manufactured in a very primitive fashion and in no great quantity, but also for the making of alcohol. All the sugar is consumed in the islands, and it has to be supplemented by imports. Nearly all the spirits are also consumed locally; for, though the figures for the exports are considerable, they probably represent inter-insular traffic, the producing islands supplying the wants of others, such as San Vicente and Sal, which do not manufacture on their own account. Roughly speaking, 1,000 litres of the juice of the sugar-cane yield 70 litres

of spirits; the same quantity of juice yields 200 kilos of sugar and 200 kilos of molasses.

Among miscellaneous products, *tobacco* grows best on Fogo, *cinchona* on Santo Antão. An indigenous reed or bent grass is abundant in Brava, and is used in the manufacture of straw hats, which are said to be equal in quality to those of Panama.

Live-stock.—*Cattle* are reared for the sake of their meat and hides, but milk is poor and butter very scarce. The animals have suffered badly from droughts, especially on the islands of Maio and Santa Luzia. *Goats* are widely distributed; they do great damage to the vegetation, which is far from luxuriant. There are comparatively few *sheep*. The *horses* used on the islands come mostly from Guinea, and to a certain extent from Portugal; except on Fogo and Santo Antão they are not of very good quality. The *donkeys*, on the other hand, are of a strong type and able to carry heavy burdens. There are a few *mules*, and recently *dromedaries* have been introduced. *Poultry*, including turkeys, do well, but a great deal more attention might be given to poultry-keeping.

The figures given below are from an animal census for 1914, in which Maio was not included:

Horned cattle	6,650
Donkeys	10,115
Mules	727
Horses and ponies	1,142
Goats	35,360
Sheep	4,927
Pigs	18,855

The total, 77,776, shows a considerable decline from that of 1902, when it was 102,747.

(b) Methods of Cultivation and Irrigation

The methods of cultivation adopted in these islands are primitive and call for no special remark. In 1878 ploughs were unknown, and those imported since have been viewed mainly as curiosities. Irrigation is a necessity for the successful raising of most of the crops, but no extensive works have been undertaken.

(c) Forestry

One of the most urgent needs of the islands is a systematic scheme of afforestation, as there are no indigenous trees. Enlightened governors have from time to time exerted themselves to make good this deficiency, but their successors in office have frequently failed to follow up the line of policy indicated. A law of 1901 imposes on the concessionaires of unoccupied land the obligation of planting ten trees per hectare; but this law is not strictly enforced. The Central Government have, however, at last created a special department of forestry and agriculture from whose work some continuity may be expected. The distance from Europe prevents the extensive introduction of fresh species, but something has been done in the way of planting sub-tropical trees such as the baobab, dracaena, and eucalyptus.

An institution for the acclimatization of useful exotic plants has been recently established at Praia on the model of the Colonial Botanic Garden at Belem, Lisbon.

(d) Land Tenure ; Profit-sharing Systems

According to law, all unoccupied land in the islands, not duly registered at the Land Record Office (*Conservatoria*) as private property, belongs to the natives. It is parcelled out into holdings, alienable by sale or mortgage, on which the islander can build his own

dwelling and raise whatever crop the soil is capable of bearing. This squatters' tenure has been carried to its greatest development in Brava, but exists in all the agricultural islands of the group.

The larger properties, devoted for the most part to coffee, *purgueira*, and sugar-cane, are chiefly to be found in San Thiago, Santo Antão, and San Nicolau. Wages on these estates, though calculated on a money basis, are usually paid in kind out of the produce of the crops raised, an arrangement preferred both by the labourers, who feel that they are thus obtaining a direct reward for their exertions, and by the proprietors as a guarantee that their interests, being bound up with those of their employees, will be well served.

A noteworthy feature of this arrangement is the contrast it presents to the industrial system in vogue in the other islands, though the latter is by no means unattractive from the labourers' point of view. In the coaling industry of San Vicente, for instance, the average wage paid is 40 centavos per day (about 1s. at the present rate of exchange) for a man and 24 centavos for a woman or a boy. This is paid in coin, the employer undertaking no responsibility for housing, food, or clothing. In agriculture, however, the nominal wage freely agreed to on both sides seldom exceeds half those figures. The nature of the crop generally determines the details of the agreement. *Purgueira*, the harvesting of which is regarded as women's work, is as a rule grown on a peasant-farming system, the landlord providing the seeds and seedlings, and the land on which these are to be raised, the cultivator finding the labour and such implements as may be required. The landlord finally receives half the crop plus one-tenth to cover the tithe payable to the Treasury, the cultivator retaining the rest.

In the island of San Thiago, however, it is a common practice for owners to lease their lands to the native cultivators at rents payable in coin or kind, as may be stipulated. In that island there also exists a system of co-operative farming, single cultivators or groups associating themselves and working under a joint-stock agreement. The crops usually raised under this system are beans, maize, and sugar-cane.

All over the archipelago, where coffee is grown, it remains under the control of the proprietor and is worked for his account.

(3) FISHERIES

The seas of the archipelago abound in fish, the Portuguese naturalist Balthazar Osorio having identified 87 species, including such excellent edible fish as the *badeio* (stockfish), *dourada* (St Peter's fish), *bonita* (a kind of tunny), and *sargo* (sargus). Authorities who have studied local conditions, notably ex-Governor F. de Paula Cid and Ernesto Vasconcellos, emphasize the desirability of fostering both the fishing and the fish-curing industries, pointing out that the archipelago enjoys peculiar advantages in respect of cheap labour, an abundance of salt, and the constant introduction of new ideas and skilled methods by emigrants returning from the United States after years of practice in this line of commerce. In the island of Sal alone, salt production at present amounts to about 330,000 bushels per annum, and, should the cod or stockfish enterprise on the Arguin banks and the adjoining Senegal coast achieve the success anticipated for it, this output might easily be increased. The importance of the trade will be recognised when it is borne in mind that salt fish is among the Portuguese the indispensable basis of the people's dietary, both at home and abroad. Not only the mother country but the provinces of

Guinea, Angola, San Thomé and Príncipe, and the island of Madeira, would afford a permanent market.

The worthless and poisonous kinds of fish taken in the nets might well be used as manure to improve the soil of the islands; as might also the guano which abounds on the Rombo islets and elsewhere.

The whale is a frequent visitor to these coasts, and whaling stations exist on two or three of the islands, the most important being that on the islet of Santa Luzia, close to San Vicente and therefore in touch with the outside world through Mindello. The men of Brava are reputed to be exceptionally skilful with the harpoon.

Efforts, more or less spasmodic, have been made to convert the islands into what they ought to be—a valuable fishing and whaling centre. While he was Colonial Minister, Moreira Junior, who established professional schools in all the colonies, appointed a lecturer on pisciculture to the School of Pilotage at Praia, a special item in the course of instruction being the methods of salting and curing fish. The scheme, however, failed to meet with the support of his successors, and appears for the present to have been shelved.

(4) MINERALS

There are no valuable minerals in these islands. Faint traces of *gold* have been found in ferruginous quartz from Boa Vista. There is also some *iron* in San Vicente.

On Brava there are quarries of a coarse *sandstone*, which is used for building and other purposes, and of a harder bluish *grey stone*, like Yorkshire granite, which is used for building only. On the south-west of San Vicente about 50 ft. above sea-level is an outcrop of grey *granite* like that of Aberdeén, but of finer grain and harder. *Clay* is used for pottery on Boa Vista.

Much *salt* is obtained on Sal, Maio, and Boa Vista by means of artificial salt-pans. *Lime* of the best quality is burnt on Boa Vista, and some also on Brava and San Thiago.

The islands are full of *mineral springs*, the best being on Brava and Santo Antão; they are impregnated with iron, lime, sulphur and acetic acid¹.

(5) MANUFACTURES

The industries of the islands are for the most part rudimentary, but are capable of development should there be any extended market for them.

Coral is at present worked only on a small scale, the industry being in the hands of Neapolitans. It is a valuable product, for which a foreign market could be found. There is a very rich bed of red coral to the south-west of Santo Antão.

Dye-stuffs, such as ochre and a few crude vegetable dyes, are prepared for local use. One of these dye-stuffs is orchilla-weed, which has been of great commercial importance in the history of the colony. It has suffered from the competition of other tropical possessions where it is more abundant, but its export might be increased if sufficient inducement were offered to its cultivators. The growing of indigo has dwindled owing to the competition of synthetic dyes.

Mineral waters are manufactured on San Vicente, and in 1912 about 22,000 litres were sold.

On Boa Vista *pottery* is made; there is a factory which has been idle for some time and needs re-equipment; earthenware vessels are however made by hand in a primitive manner.

There is a *salt* industry in some of the islands (see

¹ There is a full account of the mineralogy of the islands by Immanuel Friedländer (see Authorities, p. 42).

above, p. 29). On Sal there are two companies concerned in the manufacture, one at Santa Maria on the south coast of the island, the other at Pedro Lume on the north coast. The industry employs 95 men and 89 women. The annual production is 1,200,000 decalitres. The salt is transported to the west coast of Africa in sailing vessels. There used to be a considerable export to Brazil, until it was stopped by the protectionist tariff established there.

The manufacture of *sugar* and *alcohol* from sugar-cane has already been mentioned; the following table gives some idea of the extent of this industry, as it stood in 1914:—

Islands	Number of hands	FINISHED PRODUCTS		
		Spirits	Molasses	Sugar
<i>San Thiago</i>		Litres	Litres	Kilos
(i) <i>Praia</i>	480	34,708	—	41,200
(ii) <i>Santa Catarina</i>	328	205,429	—	52,702
<i>Brava</i>	72	6,145	1,226	—
<i>Santo Antão</i>	118	246,687	43,980	—

Miscellaneous Industries.—In San Thiago and Fogo there is a rudimentary manufacture of *ropes* from the fibres of coconut and *piteira*; “Panama” *straw hats* are made on Fogo and Brava, and are worn in the Portuguese navy and merchant-service. A fine *lace* is made by the inhabitants of some of the islands. The *weaving of cotton cloth* for export to the African mainland was at one time an important industry, and notwithstanding the competition of Manchester goods it still exists in Fogo and San Thiago. Other small industries include the manufacture of *purgueira oil* in Fogo, Boa Vista and San Thiago, of *baskets* in San Thiago and San Nicolau, and of *soap* in Fogo and San Thiago.

(C) COMMERCE

(1) DOMESTIC

(a) Organizations to promote Trade and Commerce

No associations formed exclusively for the promotion of trade have been noted as existing in the islands, but the assistance rendered to agriculture by the Banco Nacional Ultramarino deserves recognition (see below, p. 36).

The help given by the Portuguese Government has taken the form of education rather than of commercial organization.

(b) Foreign Interests

The coaling industry at San Vicente is in the hands of four firms, three of which are British, while the fourth, though nominally Portuguese, works with British capital. The West African Telegraph Company at the same port is an English company, having its head office in London. The making of salt in Sal is, or was, partially in French hands. The small coral industry, as has been said above, is conducted by Neapolitans.

No German firm seems to have established itself in the islands, but before the war, one at least, the house of Hesse, Neumann and Co., Hamburg and London, used to maintain a representative, with head-quarters at Funchal. He was constantly travelling with samples and leather, cotton and woollen goods for sale, the articles being indiscriminately British, French and German. He was well known in these islands and in the Portuguese possessions in West Africa, and his only serious competitors were a few representatives of Manchester houses, who occasionally visited the ports and secured orders supplementing those already given to the Hamburg firm.

(2) FOREIGN

(a) *Exports*

The exports of the Cape Verde Islands amount in value to something between a seventh and a thirteenth of the imports. The value of the exports in the years 1910-1914 was as follows:—

	<i>Escudos</i>
1910	319,907
1911	291,920
1912	168,971
1913	354,240
1914	295,768

Portugal, in virtue of her protective fiscal policy, takes about 95 per cent. of these. In 1911 and 1912 respectively the United States took 1·46 and 2·32 per cent., France and the French Possessions 1·28 and 1·96 per cent., the United Kingdom and British Possessions 0·35 and 1·02 per cent. Germany took nothing.

The most important exports are coffee and *purgueira* seeds, which account together for about three-quarters of the total. Goatskins, hides, rum, and, in years when there is no deficiency, maize are among the other chief items. Some trade is done in live animals, fruit and vegetables with French and Portuguese colonies in West Africa.

(b) *Imports*

The value of the imports for the two years 1911 and 1912 respectively was Esc. 1,957,146 and Esc. 2,165,651. In each case about half of the total (55·96 per cent. in 1911 and 54·71 per cent. in 1912) represented goods from the United Kingdom or the British Possessions, while 30·19 per cent. in the former year and 40·15 in the latter were supplied by Portugal. Imports from Germany showed a marked decrease in 1912, in which

year they were less than those from the United States. German goods, trans-shipped at Lisbon to Portuguese ships by the German houses established there, used to find a good market in the islands, because their cheapness, despite their obvious inferiority, appealed to the local customer.

The chief imports are coal, textiles, provisions, flour, sugar, rice, liquors, and tobacco. These are fairly constant, but in individual years large items appear which either are not catalogued at all in other years or appear at a much lower figure. For instance, in 1909 telegraph material, and in 1910 lighters and boats, occupied the third place in the list of imports. Of imports of British origin much the most important is coal, the other chief items being material for the coaling companies and for the West African Telegraph Company. British rice, flour, and sugar are generally priced too high to find a market here. From the United States are imported boots, shoes, and timber in small sailing vessels, which take emigrants in return. Maize is not imported in large quantities except in years when the local crop is poor. In 1913 the islands imported maize to the value of Esc. 107,788, of which 80 per cent. came from the Argentine and practically all the rest from Mozambique; in 1914 the value of maize imported amounted to Esc. 213,978.

A table of imports and exports for 1911 and 1912 will be found in Tables I and II of the Appendix.

(c) Customs and Tariffs

Import duties, which are imposed on a very large number of articles, are in some cases very heavy. That on coal in particular is so high as seriously to imperil the position of San Vicente as a coaling station. Portuguese goods, as in the case of all the other Portuguese possessions, enjoy specially reduced rates. Among foreign

goods which are admitted free of duty are agricultural implements and machinery, sewing machines, scientific instruments, wagons, cars and railway carriages, live animals, vegetables, plants and green fruit, mineral waters, ice, barrel staves, etc.

All exports consigned to Portugal or the Portuguese possessions enjoy a rebate of one-half on the ordinary rates.

(D) FINANCE

(1) *Public Finance*

The colony of Cape Verde is free from debt, but between 1910 and 1915 surpluses from the revenues of San Thomé and Príncipe to the amount of Esc. 150,000 had to be transferred to the Treasury to enable it to balance its accounts. These grants do not appear in the published accounts of the Colony, but are duly recorded in the Colonial Office notification authorizing them. A grant-in-aid of Esc. 34,000 was made by the Portuguese Treasury in 1914.

One of the chief sources of revenue is the coal tax, which brought in Esc. 84,000 in 1912-13, and Esc. 72,000 in 1913-14; but as the use of the island coaling stations is declining, and the coaling companies are not inclined to accept the suggestion of the Government for the re-adjustment of the tax upon the basis of an average on the figures for past years, the Treasury has either to find other sources of revenue or to effect economies at the risk of doing permanent injury to the interests of the islands.

The financial position in 1913-14, and the general tendency of revenue and expenditure since 1908-09, are shown in Table III of the Appendix¹. The large

¹ These figures are reproduced from the *Archipelago de Cabo Verde* by E. J. de Carvalho e Vasconcellos, (1916). They are fuller than any others available, but should be accepted with great caution.

proportion of military charges to total expenditure is partially explained by the fact that health establishments, properly a civil charge, are included under the head of military expenditure. The charges for civil administration, however, are almost equally high in proportion to the total expenditure.

(2) *Currency*

The monetary system is that of Portugal, the only local peculiarity being that the nickel coins of 100 *reis* and 50 *reis*, current in Portugal to this day notwithstanding the reform of the currency introduced by the Republic¹, are not current in this province. Their place is taken by an earlier silver coinage, still current but not very commonly used in Portugal. Notes of the Bank of Portugal are accepted payable at a discount, the only paper money circulating at its face value being the note issue of the local branch of the Banco Nacional Ultramarino.

(3) *Banking*

The position of banking in the Cape Verde Islands does not differ essentially from that described in *San Thomé and Príncipe*, No. 119 of this Series.

The charter of the Banco Nacional Ultramarino, granted under an Act of the Portuguese Legislature in 1864, and renewed in 1876 and 1910, is now under revision. The Government contemplates reorganization and unification of the colonial banking system. The existing charter gives the bank the exclusive right to do business in the overseas possessions as a bank of credit, discount, and issue, the head office in Lisbon,

¹ By this reform, which was effected in 1911, the *milreis* was assimilated to the dollar, renamed *escudo* and divided into 100 *centavos* instead of as formerly into 1,000 *reis*. Within the last five years, however, the exchange value of the *escudo* has fallen to about 2s. 6d. of English money, necessitating the raising of foreign postage rates by 50 per cent. in order to bring them into conformity with those fixed by the Geneva Postal Convention.

however, being deprived of the right of issue on account of the monopoly granted to the Bank of Portugal.

Cape Verde being mainly an agricultural colony, the most important function of the bank is that of granting land-credit. In the scheme of reorganization, the existing provisions, objects, and definitions of land-credit operations have been re-stated, and if approved by the Legislature, the powers of the Banco Nacional Ultramarino will be as follows:—

(i) To make advances to Government, administrative bodies and all establishments or associations legally constituted, to agricultural syndicates, and to cultivators, whether ordinary or contract workers, provided such advances are for the construction of roads subsidiary to agriculture or of factories to manipulate agricultural produce, for the clearing of lands, for irrigation works, drainage or reclamation of swamps, for afforestation or for other work for the improvement of the soil. These advances to be secured by mortgage, lien, or collateral security, for terms not exceeding nine years in the case of a lien, and one year in the case of collateral security;

(ii) To encourage, subject to the necessary guarantees, all agricultural improvements, by promoting and taking part in the formation of companies and syndicates for this purpose;

(iii) To discount cultivators' approved bills or promissory notes of a currency not exceeding three months;

(iv) To open cash-credits with approved cultivators for periods not exceeding one year, on the security of a mortgage or lien on produce, titles, and warrants;

(v) To make advances in coin or in kind for sowing and planting, subject to approved security;

(vi) To make similar advances upon crops, standing, harvested, or stored;

(vii) To make similar advances upon cattle and agricultural implements, if insured;

(viii) To re-discount paper already discounted by agricultural companies or syndicates.

There is a branch of the Banco Nacional Ultramarino at Praia and an agency at Mindello.

(4) *Foreign Capital*

Under the existing regime, which is strictly protectionist, the foreign capitalist is regarded rather as a rival to be kept at arm's length than as a colleague to be welcomed and encouraged.

Existing British and other foreign interests in the Cape Verde Islands are referred to on p. 31.

(E) GENERAL REMARKS

The great advantage enjoyed by the Cape Verde Islands is their geographical position. They are on the direct route from the ports of Europe to the ports of Brazil, and are suitably placed for much of the trade between North America and the west coast of Africa. Their comparative proximity to the mother country would give them advantages over most other possessions of Portugal, if their interests were properly fostered.

The retention of the coaling station at San Vicente is of primary importance to the province, but the use of this port for coaling has diminished on account of the high tariff and consequent high prices of coal. If the coal trade ceased, there would be a constant deficit in the budget, and it would be very difficult for the Government to find anything else which could take its place as a source of revenue.

If the industrial and agricultural interests of the islands were adequately fostered, however, there seems to be no reason why they should be outstripped by the Canaries in seaborne trade. It is claimed that the Cape Verde Islands can produce all that is now produced by the Canaries, as well as some commodities, such as coffee, which the Canaries cannot. The *purgueira* oil trade, already fairly flourishing, could be further developed. It has been seen that many kinds of fruit grow excellently in some of the islands, but more might be done with them. Indigo may gain in economic value if the competition of synthetic dyes decreases. The fishing industry might be greatly developed; the presence of salt on Sal and Boa Vista, combined with the proximity of rich fishing-banks, should provide a great opportunity for salting and drying fish on a large scale. It is true that the mineral resources of the islands are slight and much of their surface is arid, but their other resources, coupled with their extremely favourable geographical position, augur well for their future prosperity, if the Portuguese Government takes full advantage of its opportunities.

APPENDIX (TRADE)

TABLE I.—VALUES OF IMPORTS AND EXPORTS, 1911 AND 1912

IMPORTS		1911	1912	EXPORTS		1911	1912
		<i>Escudos</i>	<i>Escudos</i>			<i>Escudos</i>	<i>Escudos</i>
Alcohol	...	3,412	4,425	Alcohol (Rum)	...	3,205	2,696
Beer	...	2,493	5,123	Animals, Live	...	7,585	7,064
Biscuits	...	24,340	—	Coffee	...	123,945	47,218
Boots and Shoes	...	10,180	11,806	Dried Fish	...	690	1,199
Candles	...	1,775	2,745	Goatskins	...	23,360	7,237
Canvas, Rope, etc.	...	5,355	6,408	Hides	...	12,450	7,128
Cement	...	3,855	5,924	Maize	...	5,940	6,949
Coal	...	882,627	1,101,196	Purgueira Seeds	...	100,205	76,789
Flour	...	91,338	114,012	Salt	...	4,075	3,126
Hardware	...	24,295	21,937	Vegetables	...	1,100	274
Hats	...	5,991	6,127	Miscellaneous	...	9,365	9,291
Metals	...	34,551	34,553				
Oil (vegetable)	...	13,643	18,053				
Paper	...	8,821	8,121				
Petroleum	...	17,062	13,116				
Provisions	...	145,810	100,884				
Rice	...	94,718	62,602				
Soap	...	14,335	17,547				
Sugar	...	34,616	46,154				
Textiles, Cotton	...	221,410	246,886				
Textiles, Silk and Wool	...	20,375	36,447				
Timber	...	15,684	—				
Tobacco	...	41,594	42,192				
Wines	...	39,956	45,891				
Miscellaneous	...	198,910	213,502				
		1,957,146	2,165,651			291,920	168,971

TABLE II.—IMPORTS AND EXPORTS SHOWING COUNTRIES OF ORIGIN OR DESTINATION,
1911 AND 1912

	IMPORTS				EXPORTS			
	1911		1912		1911		1912	
	<i>Escudos</i>	Percentage of Total	<i>Escudos</i>	Percentage of Total	<i>Escudos</i>	Percentage of Total	<i>Escudos</i>	Percentage of Total
Portugal, with Portuguese Islands and Colonies ...	608,657	31.10	870,234	40.18	282,210	96.67	158,701	93.92
United Kingdom and British Possessions ...	1,094,297	55.91	1,185,008	54.72	1,030	0.35	1,721	1.02
United States ...	67,576	3.45	51,510	2.38	4,280	1.46	4,031	2.38
Germany ...	82,424	4.21	2,542	0.12	—	—	—	—
France and French Colonies	37,102	1.89	10,472	0.43	3,745	1.28	3,312	1.96
Other Countries ...	67,090	3.42	45,885	2.12	655	0.22	1,206	0.71
	1,957,146		2,165,651		291,920		168,971	

TABLE III.—CHIEF HEADS OF REVENUE AND EXPENDITURE
FOR THE YEARS 1908-09 TO 1913-14¹

	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
REVENUE—						
Land Tax and other Direct Taxation ...	<i>Escudos</i> 147,000	<i>Escudos</i> 142,000	<i>Escudos</i> 136,000	<i>Escudos</i> 143,000	<i>Escudos</i> 148,000	<i>Escudos</i> 136,000
Indirect Taxation ...	236,000	249,000	242,000	270,000	248,000	264,000
National Property and Miscellaneous Revenues ...	23,000	26,000	24,000	26,000	28,000	38,000
Funds with Special Application ...	400	400	300	10,000	8,000	1,000
Grant-in-aid by Home Treasury ...	—	—	—	—	—	35,000
Total	406,400	417,400	402,300	449,000	432,000	474,000
EXPENDITURE—						
Government Administration ...	112,000	109,000	106,000	133,000	108,000	143,000
Treasury ...	53,000	52,000	53,000	62,000	71,000	63,000
Judicial ...	17,000	16,000	15,000	20,000	18,000	19,000
Ecclesiastical ...	15,000	10,000	10,000	13,000	15,000	13,000
Military ...	119,000	122,000	109,000	119,000	113,000	106,000
Naval ...	23,000	23,000	22,000	25,000	26,000	29,000
General Charges ...	19,000	19,000	18,000	21,000	22,000	25,000
Miscellaneous Expenditure ...	32,000	36,000	44,000	23,000	34,000	23,000
Closed Accounts ...	2,000	1,000	300	2,000	1,000	2,000
Extraordinary Expenditure ...	9,000	10,000	21,000	14,000	21,000	51,000
Total	401,000 5,400	398,000 19,400	398,300 4,000	432,000 17,000	429,000 3,000	474,000 —
Closing Balances ...	406,400	417,400	402,300	449,000	432,000	474,000

¹ See above, p. 34, footnote 1.

AUTHORITIES

HISTORICAL

- ANDRADE CORVO, J. DE. *Estudos sobre as Províncias Ultramarinas*. 4 vols. Lisbon, 1883-88.
- AZURARA, G. E. DE. *Discovery and Conquest of Guinea*. Lisbon, 1453. Translated and edited by E. Prestage and C. R. Beazley. 2 vols. Hakluyt Society. London, 1898.
- BRAGANÇA CUNHA, V. DE. *Eight Centuries of Portuguese Monarchy*. London, 1911.
- CADAMOSTO, LUIGI DI. *Navigazioni di Alvisè da Ca'da Mosto*. Venice, 1550. English Translation in *A New General Collection of Voyages and Travels*, Vol. I. London, 1745-7.
- CID, FRANCISCO DE PAULA. *La Main d'Oeuvre aux Îles de Cabo Verde*. Lisbon, 1914.
- FERNANDES DE MORAVIA, VALENTIM. *Chronicas* (Revista Portuguesa Colonial Maritima. Vol. VI). Lisbon, 1899-1900.
- OLIVEIRA MARTINS, J. P. *O Brazil e as Colonias*. Lisbon, 1904.

ECONOMIC

- Anuario Colonial*. Lisbon, 1916.
- Anuario Commercial de Portugal*. Lisbon, 1917.
- As Colonias Portuguezas*. Lisbon, 1883-92.
- British Diplomatic and Consular Reports* (Cape Verde Islands), Nos. 4847 and 5284. London, 1912 and 1914.
- ANDRADE CORVO, JOÃO DE. *Estudos sobre as Províncias Ultramarinas*. 4 vols. Lisbon, 1883-88.
- CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portuguezas*. Lisbon, 1903.
- *Archipelago de Cabo Verde*. Lisbon, 1916.
- COSTA E ANDRADE, ALFREDO DA. *Cabo Verde* (Boletim da Sociedade de Geografia). Lisbon, 1913.
- FRIEDLÄNDER, IMMANUEL. *Beiträge zur Kenntniss der Kapverdischen Inseln*. Berlin, 1913.
- JOHNSTON, Sir H. H. *The Portuguese West African Colonies* (Society of Arts Journal). London, 1884.
- *The Colonization of Africa by Alien Races*. Cambridge, 1913.
- MARVAUD, A. *Le Portugal et ses Colonies*. Paris, 1912.
- OLIVEIRA MARTINS, J. P. *O Brazil e as Colonias*. Lisbon, 1904.

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PORTUGUESE GUINEA

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TABLE OF CONTENTS

I. GEOGRAPHY PHYSICAL AND POLITICAL	PAGE
(1) Position and Frontiers	1
(2) Surface, Coast, and River System	
Surface	2
Coast	3
River System	3
(3) Climate	4
(4) Sanitary Conditions	5
(5) Race and Language	5
(6) Population	7
II. POLITICAL HISTORY	
Chronological Summary	8
History	8
III. SOCIAL AND POLITICAL CONDITIONS	
(1) Religious	11
(2) Political	11
(3) Educational	12
GENERAL OBSERVATIONS	13
IV. ECONOMIC CONDITIONS	
(A) MEANS OF COMMUNICATION	
(1) Internal	
(a) Roads	14
(b) Rivers	14
(c) Railways	16
(d) Posts and Telegraphs	16
(2) External	
(a) Ports	16
(b) Shipping Lines	18
(c) Cables	18

TABLE OF CONTENTS

[No. 118]

(B) INDUSTRY	PAGE
(1) Labour	
(a) Supply, Emigration and Immigration	19
(b) Labour Conditions	20
(2) Agriculture	
(a) Products of Commercial Value	
Vegetable Products	20
Live-stock and Animal Products	22
(b) Methods of Cultivation	23
(c) Forestry	23
(d) Land Tenure	24
(3) Fisheries	25
(4) Minerals	25
(5) Manufactures	26
(C) COMMERCE	
(1) Domestic	
(a) Principal Branches of Trade	26
(b) Towns, Markets, etc.	28
(2) Foreign	
(a) Exports	28
(b) Imports	30
(c) Customs and Tariffs	31
(D) FINANCE	
(1) Public Finance	32
(2) Currency and Banking	34
(E) GENERAL REMARKS	34
APPENDIX	
Convention between France and Portugal, May 12, 1886	36
AUTHORITIES	38
MAPS	39

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

PORTUGUESE Guinea, which has an area of about 14,000 square miles, is situated on the west coast of Africa, between $10^{\circ} 50'$ and $12^{\circ} 45'$ north latitude and $13^{\circ} 35'$ and $16^{\circ} 45'$ west longitude. It forms an enclave in French territory, the district of the Kasamanse lying to the north, Futa Jalon to the east, and French Guinea to the south. Good natural boundaries are wanting, and the line of division between the French and Portuguese possessions is generally of an arbitrary nature.

By the Convention of May 12, 1886, it was agreed that the northern frontier should run from Cape Roxo and, as far as the nature of the land permitted, should keep at an equal distance from the rivers Kasamanse and Cacheu till it reached the point where the meridian $15^{\circ} 10'$ west cuts the parallel $12^{\circ} 40'$ north. This parallel was then to form the frontier as far east as $13^{\circ} 40'$ west longitude. The southern frontier, according to the Convention, followed a line which started at the mouth of the Cajet and kept as far as possible at an equal distance between the Komponi and the Cassini (Cacine), then between the northern branch of the Komponi and at first the southern branch of the Cassini, and then the Rio Grande, until it reached the point where the meridian $13^{\circ} 40'$ west cuts the parallel $11^{\circ} 40'$ north. It was also agreed that the eastern frontier should follow the meridian $13^{\circ} 40'$ west from $12^{\circ} 40'$ to $11^{\circ} 40'$ north latitude. To Portugal were

assigned the islands lying within the area bounded by the meridian of Cape Roxo, the coast, and the line which follows the *thalweg* of the Cajet, turns south-west across the Passe des Pilots, and runs along the parallel 10° 40' north till it reaches the meridian of Cape Roxo.

Between 1902 and 1905 a Franco-Portuguese Commission surveyed the boundaries of the region. The most important change made was the cession to France of the district of Kade, about midway on the eastern frontier; while, to the north of this district, Portuguese territory was carried farther to the east than in the original agreement.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

Large parts of Portuguese Guinea are practically unknown. The greater part of the country is lowland, and only in the south-east corner does the height of the land exceed 600 feet above sea-level. In the west the sands and clays carried down by the rivers from the interior have covered all the older rocks except at a few isolated points, and have also collected around various submarine reefs and transformed them into the archipelago of broad, low islands known as the Bijagos (Bissagos).

Farther east the surface of the land increases in height, the valleys are deeper and broader, and the country is better drained.

In the alluvial districts the soil is often rich in humus, and where it is well drained is very fertile. The districts in which laterite is found are covered by poorer soils, but are by no means unproductive. Swamps cover considerable areas near the coast and in the vicinity of the rivers.

Coast

The coast is so much indented that no accurate estimate of its total length can be made, but the length in a straight line from Cape Roxo to the mouth of the Cajet is about 150 miles. The islands off the coast may be divided into two groups. A number are only separated from the coast by creeks or the branches of various rivers, and among these are such islands as Bolama, Pecixe, Jata, and many others. Farther off lies the archipelago of Bijagos, in which are Orango, Canhabac, Caravela, Formosa and Ponta.

Navigation along the coast offers serious difficulties on account of reefs and sandbanks, and at the mouths of the rivers especially extreme caution is necessary. The chief ports are Cacheu on the river of the same name, Bissau on the estuary of the Rio Grande, and Bolama on the island of Bolama.

River System

The *Cacheu* rises in the east central part of the country, and pursues a winding course westward for 360 kilometres, or nearly 225 miles. It has many affluents, of which the chief one on the right is the Patea and the largest on the left the Rio da Armada. The *Geba* or *Rio Xaianga* rises in French territory and flows south-west, to the same inlet of the sea as the Rio Grande. Its principal tributary, the *Colufe*, enters on the left bank near Bafata. The *Rio Grande* rises in French territory and flows south-west through the country. It then turns west and finally north-west, where its estuary joins that of the Geba. In its course it is known under the various names of *Cocoli*, *Coli*, *Coliba*, and *Corubal* or *Crobal*.

Other rivers are the *Mansoa*, between the Cacheu and the Geba, the *Bolola*¹ and the *Tomboli*, south of the

¹ The *Bolola* is also sometimes called the *Rio Grande*.

Rio Grande, and the *Combidjam* and the *Cassini* near the southern frontier. They are generally speaking small.

(3) CLIMATE

Portuguese Guinea has two well-defined seasons, a wet and a dry. The dry season lasts from December till April, and during this period the hot dry *harmattan* blows from the desert nearly every day; but it is replaced towards evening by a cool sea breeze, at any rate in the coastal districts. The temperature is high, especially towards the end of the dry season, when readings of 104° F. (40° C.) have been recorded in the shade at mid-day.

The rainy season begins in April and May. During June and July there are severe thunderstorms with much rain, which have a cooling effect upon the atmosphere. During August, September, October, and November there is a gradual decrease to the beginning of the dry season in December. The mean temperature is probably under 80° F. (26·6° C.). In the interior, it is said, the seasons are less marked than on the coast.

A meteorological station has been in existence at Bolama since 1905, and the following figures are based upon observations made there during the four years 1913–16. As regards temperature, the maximum monthly mean occurs in May (85° F., 29·5° C.) with a secondary maximum in November (82° F., 28° C.), and the minimum in January (77° F., 25° C.) with a secondary minimum in August (80° F., 26·6° C.). The total range of the monthly means is barely 9° F. (5° C.).

The period from January to April is entirely rainless, and the fall in May and December insignificant. The total annual rainfall of almost 77 inches (1,948 mm.) is thus practically confined to the six months, June to November, and of it nearly a third (23½ in., 600 mm.) falls in August. The relative humidity, however, is

highest in September (over 80 per cent.), while it is lowest in January (under 67 per cent.). From November to April the wind blows from the north-east with more than twice the velocity with which it blows from the south-east and east from May to October.

(4) SANITARY CONDITIONS

The climate, especially that of the coastal districts, is bad for Europeans. Practically nothing has been done to improve sanitation, and most tropical diseases are prevalent. Malaria and black-water fever are serious diseases in the province, and yellow fever is also known. Sleeping sickness is common in certain districts, while small-pox, leprosy, guinea worm, yaws, and elephantiasis are also prevalent.

It is obvious that Portuguese Guinea can never become a place of permanent settlement for white men. Experience proves that for Europeans the best rule is to stay in the colony for periods of not more than 18 months, and to spend six months in a temperate climate between these periods.

(5) RACE AND LANGUAGE

At least sixteen tribes have been recognised in Portuguese Guinea. Roughly, the interior east of a line drawn southwards through the head of the Geba estuary is occupied by the *Fula* tribes; the land on the northern side of that estuary, as far as the Rio Cacheu, by *Balantas* in the interior and *Papeis* towards the coast; and the land on the south side mainly by *Biafadas*. Other tribes occupy the littoral and the islands. On the northern bank of the Cacheu, by the coast, are the *Felupes* (French, *Flup* or *Felupe*), a primitive people with relatively regular features, similar to whom are the neighbouring tribes of the *Baiotes* (French, *Bayottes*),

Banhuntos or *Banhuns* (French, *Bagnuk*) and *Cassangas*. The *Mancanhas*, *Buramos* or *Brames*, on the same side of the river, are looked down upon as inferiors by the other tribes. They form large villages in the island of Bolama, where they assist in the loading and unloading of vessels.

The *Balantas* are a tribe of great significance for the future of the colony. They are most industrious, and their territory is densely populated. It has been observed that the greater the expansion of the *Balantas* the more amenable they become to colonial authority. In appearance they are tall and slender, have irregular features, and wear a tuft of beard.

Coastwards are the *Papeis* and *Manjacos*, who much resemble each other in physical appearance and customs, but while the former are still half-savage warriors, the *Manjacos* are clever traders and workers and a valuable element for the development of the colony.

Two great *Fula* tribes (French *Peulh* or *Peul*; plural, *Fulbe*) occupy the interior both north and south of the river Xaianga, and are a most important factor for the colony's future. The *Fula-Forros* in the south-east form one division. The *Fula-Pretos*, farther east, are the more numerous section, but are rather more mixed in blood.

Scattered throughout the *Fula* territory are the *Mandingos*, a negroid type; they are traders and labourers rather than cultivators. Towards the coast south of the Geba estuary *Biafadas*, who in every respect much resemble the *Fulas*, predominate. In the south-east corner are the *Nalus*, who are being absorbed by the *Soços* (French, *Soso* or *Susu*), a neighbouring people.

The *Bijagos* (*Bissagos*) of the archipelago are a race of powerful build and irregular features, who are certain to be favourably affected by the agricultural development now being undertaken in the islands.

The *Grumetes* are descendants of natives of various tribes who were converted to Christianity early in the Portuguese occupation and adopted Portuguese dress and customs. They are most numerous about Bolama, Bissau, Cacheu, Geba and Farim.

Distributed throughout the whole colony are mulatto descendants of the Portuguese, who are familiar not only with the Portuguese language and the degenerate Cape Verde variety of it known as Creole¹, but also in most districts with the languages of the natives. As a result, in most of the native villages some of the coloured people use Creole as a medium of communication.

(6) POPULATION

The population of Portuguese Guinea is officially estimated at 400,000; but other estimates vary from 100,000 to 800,000. If 400,000 be correct the average density would be about 28 to the square mile. Regarding its distribution little is known. The most numerous group are the Fula, the smallest the Grumetes.

. ¹ See *Cape Verde Islands*, No. 117 of this Series, p. 6.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1445(?). Cape Verde discovered.
- 1446. Coast of Portuguese Guinea explored.
- 1447. Nuno Tristão killed in the Rio Grande.
- 1462. Rights over Rio Grande coast granted to colonists of San Thiago, Cape Verde Islands.
- 1650. Guinea subordinate to Cape Verde Archipelago Governor.
- 1690. Bissau a flourishing centre of the slave-trade.
- 1858. English claim to Bolama.
- 1870. Arbitration of President Grant on Anglo-Portuguese dispute: decision in favour of Portugal.
- 1879. Portuguese Guinea separated from Cape Verde Islands and formed into a separate colony.
- 1886. Franco-Portuguese Convention concerning the frontier of Guinea.
- 1902-5. Delimitation of frontier.
- 1908. Rising of the Papeis and other native tribes.
- 1917. Guinea receives a new charter.

HISTORY

THE territory now known as Portuguese Guinea is the only remnant of the once important Portuguese Seignory of Guinea, which was lost during the struggles with the Dutch in the seventeenth century. The discovery of this coast was made by the explorers sent out by Prince Henry the Navigator during the years following 1445, when Cape Verde was doubled by Dinis Dias. One of the most adventurous of these was João Gonçalves (Zarco), the discoverer of Madeira twenty-five years before. De Barros and Azurara say that he passed the Senegal River and Cape Verde, and sailed as far as the Cabo dos Mastos, which is in Portuguese Guinea

south of the Rio Grande, and which owes its name to the fact that the trunks of some dead palm-trees suggested to the mariners the masts of a ship. Another well-known explorer of this period was Nuno Tristão, who had been commissioned to explore beyond the Cabo dos Mastos, but instead entered the Rio Grande and went up the river in a small boat, probably looking for slaves. Here he was attacked by negroes of the Nalu tribe armed with poisoned arrows, and was killed with many of his men. This event, which occurred in 1447, is said by some writers to have taken place in Gambia, but De Barros distinctly says it was on the Rio Grande.

In the grant of the island of San Thiago in the Cape Verde Islands made in 1462 to Dom Fernando, all rights on this part of the African coast were granted to the colonists of this island. The most valuable of these rights was doubtless the slave-trade. Among the factories established by them were those on the estuary of the Rio Grande and on the Rio Geba, one of the largest feeders of this estuary. The principal factory on this coast was at Cacheu, on the estuary of the Rio Cacheu, which enters the sea to the north of the Rio Grande, but it was afterwards moved to Sarak higher up the same river, where a fort was built towards the end of the sixteenth century. In the seventeenth century the trade in slaves to supply the Spanish colonies as well as Brazil increased very greatly, and in 1690 Bissau on the north side of the estuary of the Rio Grande became the principal centre of this trade.

The islands off the coast were long unoccupied, and in the middle of the nineteenth century England made claims to the island of Bolama and the adjacent mainland coast. After long discussion these claims were, by an Anglo-Portuguese Protocol of January 13, 1869, submitted to the arbitration of the President of the

United States of America, who decided on April 21, 1870, in favour of the Portuguese¹. Meanwhile the French had occupied the territory along the Kasamanse River between the Gambia and the Rio Grande, and the country known as the Rivières du Sud, which separates Portuguese Guinea from Sierra Leone. Thus it was definitely bounded both to the north and south, and the land frontier was determined by Article 1 of the Convention between France and Portugal of May 12, 1886². The frontier was actually delimited between 1902 and 1905.

Till 1879 Portuguese Guinea was administered as part of the Cape Verde Islands. Since that date it has been a separate province under a Governor.

In 1908 there was a formidable native rising of the Papeis tribe on Bissau Island and of other tribes on the mainland, which was with difficulty suppressed by troops sent from Portugal. Most of the Guinea tribes, however, are practically independent.

¹ See *State Papers*, Vol. 61, 1870-1, pp. 1103-6 and 1163.

² See Appendix, p. 36.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE Roman Catholic Church in this colony has hitherto been presided over by a Vicar-General, under whom were a number of missionary priests with a College at Sernache de Bomjardim. Since the disestablishment of the Church in 1912 these establishments seem to have fallen into decay, and the missionaries have been withdrawn from the inland territories. In the districts occupied by the Mohammedan Fula, Islam shows a tendency to spread, and its propaganda, which is said to be unfavourable to Portuguese rule, is strengthened by the withdrawal of the Christian missionaries.

The negro population nearer to the coast is mainly fetishist, and the vast majority of the inhabitants of the colony are still pagans.

(2) POLITICAL

In 1906 the military commands were converted into civil residencies, and in 1912 the residencies were in turn converted into civil "circumscriptions," a subsequent modification of these being made in 1916. A new charter was given to the province in 1917. Its capital is Bolama. The Governor is appointed by the Lisbon Ministry, and is the head of both civil and military administration, but has no control over the course of law and justice. He has a council to assist him, composed of ex-officio members and elected representatives of commerce and of the municipalities. For certain measures, such as the proclamation of martial law, or the dissolution of administrative bodies, the

previous sanction of this council is obligatory; for others, its consultation is optional.

There is also a special tribunal for the settlement of "contentious matters and accounts," i.e. questions arising between individuals or corporations and the Customs or Treasury and involving the interpretation of a rule or regulation. Bissau and Bolama, also the chief towns of civil circumscriptions, have their municipalities for the control of purely local affairs. The unsubjugated areas are, or may be, separated from the circumscription in which they are comprised and placed under military commands, with detached posts subordinate to these wherever circumstances render it necessary.

The administrative work of the province is portioned out among eight departments.

Judicial affairs are independent of the Government. There is a single judge for the province, assisted by a deputy-procurator and a judge-advocate for courts martial, the latter being also registrar for the civil and criminal jurisdiction. A municipal judge sits at Bolama, and there is a deputy-assistant-procurator at Bissau.

(3) EDUCATIONAL

Such primary education as existed was in the hands of the missionary priests until the disestablishment of the Church in 1912. Schools were maintained at Bolama, Bissau, Cacheu, and Farim for both sexes, and for boys only at Bafata, Buba, and Cassini (Cacine). These have now been transformed into State schools. No effect seems to have been given in this colony to the decree of Jan. 18, 1906, in favour of technical schools. There is however one apprenticeship institution at the National Press, Bolama, and one at the telegraph station of the same town.

GENERAL OBSERVATIONS

From the first, progress in this colony has been retarded by the unhealthiness of its climate and the hostility to European civilization displayed by the greater part of its native population. Such foreign capital as has been embarked in local enterprises has not achieved any very promising results. The region is virtually an enclave in French territory. Its natural and agricultural resources are considerable and not incapable of development; but in view of the very special circumstances of the province, there is reason to believe that Portuguese methods have a better chance of success here than those likely to be applied by the capitalists or administrators of any other nation. Sir Harry Johnston has recorded, in the case of Angola, that the Portuguese rule more by influence than by force. This opinion seems to be equally applicable to the case of Portuguese Guinea, where the military establishment amounts to 500 men of all ranks, or 35 men per 1,000 square miles of territory.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads*

THE abundance of waterways in Portuguese Guinea, affording a convenient means of communication, not only makes an extensive system of roads superfluous over a large part of the colony, but would also, on account of the numerous bridges or ferries which would be necessary, render road construction extremely expensive. Up-country, however, as the streams cease to be navigable, roads become more necessary and the obstacles to their construction decrease. In the neighbourhood of the Geba there are many roads, some of them veritable highways, linking up the native settlements with the ports. Two cart roads were reported to be under construction in 1914. One was to start from Buba at the head of the Rio Grande and cross the Corubal to Xitoli, thence striking north-east up the valley of the Corubal towards Futa Jalon in French territory; the other was to connect the town of Farim with Port Mansoa. It is proposed to make others in the cattle-breeding region between the Farim and Geba rivers, where animal traction is available.

(b) *Rivers*

The colony possesses a network of waterways, including not only the rivers with their tributaries and lengthy estuaries, but also various water-channels, which sometimes afford a connection between rivers. One such channel joins the estuaries of the Cacheu

and the Kasamanse, and another, the Impernal, connects the Mansoa with the Geba.

The waterways form the main highways of the colony. Many of the so-called rivers are merely arms of the sea. Of these the *Bolola* is navigable for sea-going ships up to the town of Buba, but owing to the continual warfare of the tribes inhabiting its banks it has for the time being lost its former commercial importance. The *Rio Cassini* does not admit vessels drawing more than 10 feet.

The chief rivers properly so-called are in the northern and eastern sections of the colony. The *Rio Cacheu*, known also in its upper course as the *Rio Farim*, has a length of 224 miles and is navigable by vessels drawing not more than 19 feet for 105 miles, up to the town of Farim. Small boats can go about 8 or 9 miles farther. Its bar is carefully buoyed, and there is no difficulty in making the entrance to the stream. The bar of the *Rio Mansoa* has a depth of four fathoms at low tide and this river is navigable for a good distance by sea-going ships. By the Impernal channel on the south bank the whole commerce of the Balanta tribe is directed towards Bissau on the estuary of the Rio Grande. This channel takes craft drawing up to five feet; above it the Mansoa is navigable by small boats for 43 miles.

The most important of the rivers commercially is the *Geba* or *Rio Xaianga*, which is navigable by vessels drawing not more than three feet as far as Bafata, the capital of the circumscription of Geba, a distance of about 71 miles. Its estuary, which joins that of the Rio Grande and is subject to a tidal bore, can be used by larger ships for 30 miles above the port of Bissau. The largest of the rivers is the *Rio Grande*. Coasting craft can ascend it as far as Xitoli, where there are important factories, but above this point its

course is obstructed by rapids and navigation is continued by native boats only.

(c) *Railways*

At present there are no railways, but it is strongly urged that a line should be laid from Bissau to Kade in French territory in order to tap the produce of the Futa Jalon hill area, which at present has to be carried across a considerable tract of Portuguese territory on its way to the nearest French coast port.

(d) *Posts and Telegraphs*

There are post offices at Bolama, Bissau, and Cacheu, and at six of the nine chief towns of the up-country circumscriptions, with sub-offices at six villages in the interior. The first three offices receive and deliver ordinary, registered, and value-declared correspondence, and also issue and pay money-orders. Their receipts for 1913 were Esc. 3,914, and for 1914 Esc. 5,247. The towns of Bolama, Bissau, San João (on the mainland opposite Bolama), Buba, Bambadinca, Bafata, Mansoa, Farim, and Cassini (Cacine) are inter-connected by telegraph, and 100 miles of line were open in 1916.

(2) EXTERNAL

(a) *Ports*

Bolama, Bissau and Cacheu are ports open to ships of all nations. The special permission of the Government of the colony is required to visit, under restrictions, the ports of the Rio Cacheu, the Rio Mansoa and the Bijagos archipelago.

Bissau, near the mouth of the Geba estuary, on its north side, is the principal port of the colony. The anchorage, with a depth of 6-7 fathoms, is safe at all times, and the largest vessels used in the West African trade can enter, whatever the state of the tide.

A T-shaped wharf of reinforced concrete, 720 feet long, was approaching completion in 1914. At the lowest tides there is sufficient water at the head to allow ships of 25 feet draught to come alongside. At the land end of the wharf are two great storehouses, from which Decauville lines run along the wharf to facilitate the loading and unloading of vessels. There are also workshops for small repairs. Ice is made for the use of ships, but the water supply is of inferior quality and not laid on in pipes, though steps were being taken to accomplish this. In all the other ports water is easily procurable.

Bolama is on the east side of the island of that name. What has been said above regarding the conditions of navigation at Bissau applies also to Bolama, where, however, the anchorage is wider and has a depth of 10-14 fathoms. A wharf similar to that at Bissau had been contracted for in 1914. Bolama possesses naval workshops for urgent repairs. Excellent water is brought in pipes to the landing. The agencies for the Companhia Nacional and the Woermann Linie, as well as almost all the commercial houses, have lighters for the discharge of goods, and the administration have ordered a steam-tug to assist vessels in coming alongside the wharves. A dredger is in use to keep the navigable channels clear.

Cacheu stands on the south bank of the river of the same name. Its anchorage is safe at all times, but access to it is restricted by the bar on the river some 15 miles below the port. Vessels drawing not more than 19 feet can cross the bar at low tide. There are two wooden landing-stages easily accessible to ships of more than 1,500 tons, which can thence proceed as far as *Farim*, 90 miles up the river.

(b) Shipping Lines

The Companhia Nacional de Navegação runs a monthly steamer from Lisbon to Bolama and Bissau, starting nominally on the 14th of every month, and another from these ports to Lisbon, starting on the 22nd. In time of peace the direct voyage takes nine days, but during the war deficiency of tonnage compelled the company to combine these voyages with those to and from the Cape Verde Islands. The Messageries Africaines used to run a monthly boat between Dakar (Senegal) and Bissau, and vessels of the Woermann Linie used to call at Dakar and Bissau on their voyages to and from Hamburg. Although in 1915 no German vessels called at a Guinea port, German tonnage during the quinquennium 1911-15 formed 49 per cent. of the whole, Portuguese tonnage amounting to only 27 per cent. Early in 1918 the Companhia Nacional re-modelled its constitution and increased its capital, in order to purchase from the Portuguese Government a number of ex-German vessels seized in 1916.

(c) Cables

The African Direct Telegraph Company, a British firm, has two short cables connecting Bolama and Bissau with Bathurst (Gambia). From Bathurst there is cable communication northwards *via* St. Vincent with Madeira, Lisbon, and Porthcurno; southwards with Ascension, St Helena, and Cape Town, and through Ascension with the River Plate; and westwards through St. Vincent with the Azores and South America (Pernambuco, Bahia, and Rio de Janeiro). As yet no wireless installation has been erected.

(B) INDUSTRY

(1) LABOUR

(a) Supply; Emigration and Immigration

As in tropical Africa generally, white labour can be used only for purposes of supervision. *Mestiço* or half-breed labour could be used to some extent, but the local half-breeds and the Cabo-Verdeans, who are fairly numerous in the province, are best employed as overseers and interpreters.

The tribes willing to serve as contract labourers, in or out of the colony, are the Brames (Buramos, or Mancanhas), the Manjacos, and the Grumetes. The personal qualities of the Papeis, were it possible to overcome their hostility to the whites and to induce them to follow the example of their industrious neighbours the Balantas, would make this tribe a valuable instrument in the development of the colony. In the south of the island of Bissau, something definite has been accomplished in this direction. The natives of Portuguese Guinea, being strong and active, make excellent carriers.

The local labour market being restricted to the requirements of the mercantile houses and of a few European concessionnaire companies, experiments were made in the engagement and exportation of contract labour to other colonies, such as San Thomé. The men sent there are reported to have given satisfaction, and to have themselves been satisfied with the terms of their contract and the punctuality of their repatriation, but for some unexplained reason the arrangements have not been continued.

(b) Labour Conditions

Where urgent public needs call for the impressment of labour, the hands required can generally be obtained, once it is understood that the men taken will be fairly treated, punctually and fully paid, and guaranteed against detention from their farms or garden plots at seed-time or harvest, or other periods at which their absence would be detrimental to their crops. But local agriculture, especially the raising of the ground-nut crop, absorbs much of the labour available, and, as it is undertaken by the native for his own profit, it has been recognised as highly undesirable to discourage it, the more so as even before the war the agricultural concessions granted to Europeans were said to be languishing if not moribund.

Moreover, the native of Portuguese Guinea is fully aware that, by working on his own land at his own time and season, he can gain much more than the equivalent of any wage likely to be offered him; and this fact is not one which the European can afford to ignore. The usual wage for a labourer is 1s. 2d. a day, with food supplied, but in the interior there is no fixed rate, and men may sometimes be obtained more cheaply.

*(2) AGRICULTURE**(a) Products of Commercial Value*

Vegetable Products.—The soil is fertile, the country well-watered, and the agricultural possibilities of the colony are therefore good. Moreover, there are many wild plants of economic value.

Cocoa is said to grow well in the Bijagos archipelago and in the Corubal and Xime country.

Cotton is at present cultivated in small plantations near the villages, but might with advantage be grown

on a much larger scale. The present supply is not sufficient to satisfy the requirements of the natives, who use it for the manufacture of clothing. The Guinea varieties are *Gossypium barbadense* and *G. herbaceum*.

Ground-nuts (*Arachis hypogæa*) are raised chiefly in the districts of Farim and Geba, on the island of Bolama and in the back-country of Cacheu. They are the leading article of commerce, and though their commercial development has been rapid during the last twelve years or so, the supply still fails to meet the demand. The ground-nut requires little labour in its cultivation beyond the preliminary clearing of the ground. The destruction of trees for this purpose is a serious danger to the forest resources of the colony.

Kola nuts grow magnificently in the district of Cassini, and are found also in Geba and Farim. At present there is a considerable import of kola nuts for consumption by the natives, especially the Moham-medans, but the local production might easily be increased to meet local needs.

Maize is an important foodstuff, but is not grown to the same extent as rice. It does well, produces two crops a year and finds a steady market in the Cape Verde Islands and at Lisbon. Its cultivation therefore might be greatly expanded.

The *oil-palm* (*Elaeis guineensis*) flourishes more exuberantly in Portuguese Guinea than in any part of West Africa, and the export of palm-kernels nearly rivals that of ground-nuts.

Rice is the staple food of the natives, and is grown on a large scale in suitable localities, especially by the Balantas in the basin of the Mansoa. The natives, however, with the exception of the Mohammedans, much prefer the cultivation of ground-nuts, which are easier to raise and quite as useful for trading purposes.

It is only by the persuasion of the administration that they are induced to grow a bare sufficiency of rice for local requirements. Large crops might be raised, and rice might form a valuable article of export.

Rubber is obtained from wild vines (e.g. *Landolphia heudelotii*) and other climbing plants. Some of the rubber, particularly that produced in the circumscription of Cassini, commands the highest price. The rubber-producing plants, however, have not been sufficiently studied.

Sugar-cane is grown with good results in some scattered plantations on the coast levels, as at Bissau, but in many cases entirely for the sake of the alcohol which is distilled from it.

The *tobacco* plant affords a leaf of excellent quality, but is not grown sufficiently to meet the demand.

Other vegetable products which might be developed are *copra*, *castor-oil*, and various *gums* and *dye-woods*.

Live-stock and Animal Products.—*Cattle* are kept all over the colony, and are particularly numerous in the circumscription of Geba. They are small and the cows give little milk, but the meat is good. No effort is made to control breeding. Cattle have a place of peculiar importance among the natives, for they are the evidence of wealth and the means of procuring wives, followers, and social prestige. Only where the natives are in direct contact with Europeans have they become willing to sell their stock for slaughter. Hides occupy an important place in the list of exports.

Horses and *asses*, also small, are confined to the circumscription of Farim and the northern part of that of Geba. Elsewhere, for reasons unknown, they are unable to live longer than a few months. They are not bred to any extent in the colony but are imported from Senegal.

Sheep and *goats* are to be found everywhere, but the sheep give no wool and the goats only a little milk. *Pigs* are common and are of excellent quality.

Bees-wax is exported, and bees are kept throughout the colony.

(b) *Methods of Cultivation*

Agriculture is an impossible occupation for Europeans, but, with the exception of a few tribes, the natives, especially the Biafadas, take to it naturally. They practise an extensive cultivation, and their plough is a sort of long-handled wooden spade with a narrow, pointed, and iron-shod blade. These primitive methods seem to be suited to local conditions, and some experiments with European methods have not been successful.

The cultivation of rice is limited to districts which can be laid under water, that is, to low lands where the water from the heavy rains accumulates in great pools, or to the banks of river channels. The natives are skilled in the construction of dams for the purpose of securing more regular irrigation.

(c) *Forestry*

The typical virgin forest, interwoven with rubber vines, is found mainly in the river valleys, where there is abundant moisture all the year round, and on the coasts and islands. In the land between the rivers the growth is less dense and continuous. In the east, where the rainfall is lower and the land better drained, forests are generally confined to the river banks and low-lying districts.

Besides the forest products mentioned above, there are woods such as the African mahogany and ebony, as well as African teak and elm-wood, but the quantity

of these has probably been a good deal exaggerated. There are also the kapok tree (*Eriodendron anfractuosum*), the wine-palm (*Raphia vinifera*) and other fibre-yielding plants. But the forest resources as a whole call for closer and more extensive investigation. They are menaced by the clearings made for ground-nuts.

Control of the forest lands is regulated by a decree of July 23, 1903, which divides the colony into forestal circumscriptions coinciding, approximately, with the administrative circumscriptions. Concessions of forest land are granted for not more than two years, but may be extended. Cutting of timber is not allowed nearer than 400 feet to a river bank and reserves must be left for ship construction. It is forbidden to cut down the different species of rubber plants, trees bordering the roads, or those bearing oil-seeds or fruits used by the natives, but as a matter of fact rubber vines are often destroyed to make room for rice. Only natives can cut and sell wood for fuel without a licence.

(d) *Land Tenure*

Only State property is alienable by concession. The law enacted May 9, 1901, with subsequent amendments, defines the limits within which concessions may be made, laying down restrictions in respect of public or common lands, waterways, alluvium or beaches, and safeguarding at the same time easements such as rights of way. These the concessionnaire may buy out subject to certain conditions.

The power of the Governor to grant concessions is limited to 2,500 hectares (about 6,000 acres), but the Colonial Minister may grant up to 25,000. In every case the concessionnaire is bound to bring his holding under cultivation or utilize it in the manner stipulated, to the extent and within the period provided in the grant-deed.

Concessions have always to be put up to public auction. A tenure by emphyteusis can only be converted into one of full dominion in the insular regions of the colony, not on the mainland.

Portuguese citizens, born or naturalized, and foreigners who can prove over six months' residence in Portuguese territory previous to the date of their application are qualified to hold concessions. The latter must file a written declaration of submission to Portuguese law in all matters affecting their concession; and the deed of grant must contain a proviso that should the concessionnaire have recourse to the diplomatic representative of his country in any matter affecting the concession, the latter will *ipso facto* become void.

A peculiar feature of this colony is that natives of the Cape Verde Islands have introduced into it a form of tenure known as the *ponta*. The islanders take up small allotments of cultivable land, hire, or make bargains for the services of natives of the vicinity, and with their help grow sugar-cane and market-garden produce; or they may sub-let plots to those natives for the cultivation of ground-nuts or other commodities, supplying them with seed, and purchasing the crop from them when harvested.

(3) FISHERIES

The fresh-water streams and tidal back-waters are only fished by the natives for their own domestic requirements; but in Bolama, Bissau, and other centres Chinese settlers (time-expired convicts from Macao deported to Guinea), as well as natives, earn a livelihood by supplying fish for market and for the shipping in harbour.

(4) MINERALS

The Fulas on the Corubal river extract and work iron ore, but native mining is primitive and the quantity

of ore obtained insignificant. No geological survey has yet been made of the colony as a whole, but the presence of oxides of iron in the soil has been recorded as a result of chemical analysis. Government rules provide for the grant of mining concessions, but none has as yet been made.

(5) MANUFACTURES

There are no manufactures in the European sense of the term, but as a general rule the personal and domestic requirements of each tribe are supplied by its own craftsmen. The Mandingos are skilful workers in leather, making sandals, sword-scabbards, cartridge-pouches, etc., while the Papeis make articles of clay. Cotton cloth is manufactured in strips about 20 centimetres (8 inches) wide, which in some parts are used as money. Before the competition of imported goods, however, native arts and crafts tend to disappear.

(C) COMMERCE

(1) DOMESTIC

(a) *Principal Branches of Trade*

Domestic trade consists mainly in the exchange of native products for European goods; there is little intertribal commerce.

The tribes which do most trade with Europeans are the Mandingos, Balantas, Biafadas, Manjacos, Fula-Forros, and the Grumetes. Most of these tribes are on the coast or in the basin of the Geba river. The Mandingos are primarily traders and workers; they furnish employees for the commercial houses and make up caravans for the conveyance of European goods to the interior. The Fula-Forros from time to time bring

caravans of native products to the coasts. The Balantas, Biafadas and Manjacos also facilitate commercial penetration, and are interested in trading. The other tribes are more suspicious and exclusive.

Among the natives themselves trade is normally restricted to particular lines. Cattle are valued, especially by the Balantas and Manjacos, as a standard of wealth. The natives of the interior do a fair business among themselves in cattle, and would do more were these districts properly pacified. The natives of districts where rice will not grow are always eager to accept rice in exchange for their own produce, and the Balantas are thus able to dispose of their surplus rice to their neighbours. The Bijagos women bring fowls, eggs, and fruits to the Bolama market, while the Felupes of the north take firewood to Cacheu and other centres of population in order to obtain alcohol and tobacco. Besides these articles the natives generally are eager to acquire guns and gunpowder.

Those who do occupy themselves with trade show aptitude and enterprise. Native retail traders are scattered throughout the colony and dispose of goods provided by the great commercial houses at Bolama and Bissau through their local branches. There are also numerous traders from the Cape Verde Islands. So-called Syrian traders coming from the Mediterranean ports of Asia and Africa form a class apart. They are generally unscrupulous and content with a low standard of living. They act as middlemen for the great firms, but, as they exploit the rivalries of these firms, the latter are full of complaints about them. In order that the interests of the natives may be safeguarded, the Syrians are not allowed to establish themselves where their activities cannot be watched by the authorities.

Neither firms nor individuals can trade in the colony

without a licence. These are classified and assessed as follows:

- (i) Persons carrying on grocers' trade without a fixed address, £1 per annum.
- (ii) All trading stores and firms, £2 10s. per annum.
- (iii) All persons or firms importing, £20 per annum.
- (iv) All importers and exporters, £29 per annum.

(b) *Towns, Markets, etc.*

Bissau, situated on the north bank of the Rio Grande estuary, is the natural outlet for the products of the northern, central and eastern districts of the colony, and is consequently its most important commercial centre. *Bolama*, the next considerable town and the seat of the Government, draws only upon the southern district and the Bijagos archipelago. *Cacheu*, however, on the south bank of the Rio Cacheu, near its mouth, seems likely to divert to itself the greater part of the commerce of the northern region. It was once the capital of Guinea and fell into decay owing to revolts among the natives. Under settled conditions it will probably recover most of its ancient prosperity.

Of the inland towns, *Farim* is an important station on the upper waters of the Rio Cacheu, and *Bafata*, similarly placed on the Geba, is the capital of the circumscription of Geba. *Xitoli*, some way up the Rio Grande, has important trading factories.

(2) FOREIGN

(a) *Exports*

Despite various handicaps the trade of the colony was increasing up to the outbreak of war at a rate only less than that of San Thomé and Príncipe. In 1890 the value of the export trade was Esc. 207,000,

in 1900 Esc. 400,000, and in 1910 Esc. 940,000. The following table shows the value from 1911 to 1915:

	<i>Escudos</i>
1911	1,226,000
1912	1,243,000
1913	1,628,000
1914	1,055,000
1915	970,000

The values of the principal articles of export, from 1911 to 1915, were as follows:

	1911 <i>Escudos</i>	1912 <i>Escudos</i>	1913 <i>Escudos</i>	1914 <i>Escudos</i>	1915 <i>Escudos</i>
Ground-nuts ...	299,000	383,000	516,000	418,000	262,000
Hides ...	45,000	57,000	79,000	102,000	165,000
Palm kernels ...	325,000	366,000	497,000	362,000	311,000
Rubber ...	436,000	354,000	319,000 ¹	49,000	105,000
Wax ...	49,000	41,000	54,000	21,000	40,000

Palm-oil, gum copal, rice, etc., are also exported in small quantities.

The greater part of the exported produce of the colony went to Germany, which took on an average 72 per cent. of the exports to foreign countries, which themselves amounted to about 78 per cent. of the total exports. Portugal thus took a comparatively small proportion of the exports.

The following table shows the destination of exports from 1911 to 1915:

	Portuguese ports	German ports	Other ports
	<i>Escudos</i>	<i>Escudos</i>	<i>Escudos</i>
1911	266,000	751,000	209,000
1912	246,000	733,000	264,000
1913	375,000	907,000	346,000
1914	248,000	499,000	308,000
1915	536,000	—	434,000

¹ These figures are given by the *Anuario Colonial*. A. L. de Fonseca, *A Guiné Portuguesa*, gives the value as Esc. 604,000.

(b) Imports

What has been said as to the expansion of exports from the colony applies also to its imports. The total value of the import trade rose from Esc. 271,000 in 1890 to Esc. 777,000 in 1900 and Esc. 1,520,000 in 1910. The following table shows the value from 1911 to 1915:

	<i>Escudos</i>
1911	1,303,000
1912	1,401,000
1913	1,698,000 ¹
1914	1,404,000
1915	1,061,000

The values of the principal articles of import, from 1911 to 1915, were as follows:

	1911 <i>Escudos</i>	1912 <i>Escudos</i>	1913 <i>Escudos</i>	1914 <i>Escudos</i>	1915 <i>Escudos</i>
Alcohol	52,000	65,000	95,000	62,000	29,000
Cotton textiles	416,000	415,000	495,000	238,000	150,000
Foodstuffs	129,000	76,000	158,000	150,000	104,000
Gunpowder	41,000	34,000	—	7,000	—
Kola nuts	95,000	103,000	143,000	205,000	138,000
Tobacco in leaf	55,000	98,000	104,000	57,000	123,000
Wine in cask	41,000	44,000	46,000	51,000	62,000

Germany took the principal place in the import trade of the colony; her share in the three years preceding the war was 44 per cent. of the total. The

	Portuguese ports	German ports	Other ports
	<i>Escudos</i>	<i>Escudos</i>	<i>Escudos</i>
1911	172,000	494,000	637,000
1912	155,000	550,000	696,000
1913	232,000	661,000	805,000
1914	700,000	295,000	409,000 ²
1915	741,000	—	320,000

¹ The *Anuario Colonial* gives the figure as Esc. 1,701,000.

² Fonseca gives this figure as Esc. 309,000, but this does not agree with his total.

previous table shows the origin of the imports from 1911 to 1915.

The small part played by Portugal is due to the fact that the home country produces few of the colonial requirements. It sends, however, almost half the total import of foodstuffs, and its wines, apart from the tariff in their favour (see below), are preferred on account of their quality. But Portugal produces neither the trade alcohol, which came mostly from Germany, nor gunpowder, and Manchester cotton goods are preferred by the natives. The leaf tobacco is of American or Dutch origin and the kola nuts are supplied by the British colony of Sierra Leone. .

(c) *Customs and Tariffs*

Custom houses are established at Bolama, Bissau, Cacheu, Cassini, Morso, Bafata, Juda Cantancia, Arame, and Farim, with 14 vigilance posts subordinate to them. The tariff rates are not illiberal, and are free from the discrimination between Portuguese and foreign goods which is so marked a feature of other Portuguese colonial tariffs. The imports paying special rates of duty are wines, spirits, tobacco, gunpowder, and firearms. All other imports pay an *ad valorem* duty of 3 per cent., which is imposed in lieu of house, trade, and interest taxes, which are not leviable in this colony. There is an *ad valorem* duty of 7 per cent. on all exports except passengers' personal baggage and effects (exempt), and oil-stuffs (special rates fixed). The charges for licences to import or export have been dealt with above (p. 28).

(D) FINANCE

(1) *Public Finance*

The general budget for 1913-14 was as follows:

REVENUE		EXPENDITURE	
	<i>Escudos</i>		<i>Escudos</i>
Direct Taxation ...	203,765	General Administration ...	111,316
Indirect Taxation ...	320,209	Treasury	56,606
State and Miscellaneous		Judicial	15,698
Revenues ...	18,157	Ecclesiastical	1,317
Earmarked Revenue ...	336	Military	128,329
		Marine	67,581
		General Charges ...	1,116
		Miscellaneous Expenses ...	20,931
		Non-recurring Expenditure	1,296
		Total ordinary expenditure	404,190
		Extraordinary expenditure	106,149
Total	542,467	Total	510,339

The above year was the last in which the finances of the colony showed an excess of revenue over expenditure, a position which had been first reached in 1910-11. The following table gives in round numbers the budget totals from 1906-7 to 1913-14:

	REVENUE	EXPENDITURE
	<i>Escudos</i>	<i>Escudos</i>
1906-7	300,800	344,800
1907-8	239,600	372,900
1908-9	280,800	338,800
1909-10	333,700	404,200
1910-11	447,400	341,800
1911-12	449,500	350,300
1912-13	533,100	409,700
1913-14	542,400	510,300

It will be seen that in the period from 1906-7 to 1909-10 there was an average deficit of Esc. 76,450, while in that from 1910-11 to 1913-14 there was an average surplus of Esc. 90,075. During the war there

was an average deficit of Esc. 98,000, the figures being as follows:

	REVENUE	EXPENDITURE
	<i>Escudos</i>	<i>Escudos</i>
1914-15	410,800	494,100
1915-16	497,800	598,500
1916-17 (estimated)	685,200	795,200

Almost the only sources of the colony's revenue are Customs and the Hut Tax, which between them, since the beginning of this century, have provided from 81 to 92 per cent. of the total receipts. The revenue derived from Customs more than trebled between 1901-2 and 1912-13, but after the outbreak of war it fell off considerably. The Hut Tax, first imposed in 1901-2, has now multiplied twenty-fold and exceeds the Customs revenue. The following table shows the contribution made from these two sources to the total revenue from 1910-11 to 1915-16:

	HUT TAX	CUSTOMS	PERCENTAGE OF TOTAL REVENUE
	<i>Escudos</i>	<i>Escudos</i>	<i>Escudos</i>
1910-11	79,891	322,531	89.9
1911-12	88,364	314,565	89.6
1912-13	97,004	386,140	90.6
1913-14	170,150	314,792	89.4
1914-15	221,450	146,792	89.6
1915-16	245,382	198,082	89.1

That the financial prosperity of the colony should be so largely dependent on such revenues is not regarded by Portuguese writers on colonial subjects as satisfactory. The Hut Tax is unpopular and a serious native revolt might render it inoperative. Even more critical is the position of the revenue from Customs, the greater part of which is derived from imported alcohol and alcoholic liquors. Almost all the alcohol came from Germany, a fact which may affect the

revenue from this source in the future, as it has already done during the war; moreover, there is a growing tendency among civilized nations to view all such traffic among the natives with disapproval. This disapproval may at any time take practical shape in severe restriction or even prohibition of the traffic, in which case Portuguese Guinea would suffer as it suffered by the abolition of slavery.

(2) *Currency and Banking*

The currency of Portuguese Guinea is that of Portugal. As in other Portuguese colonies, the right to issue paper currency is a monopoly of the Banco Nacional Ultramarino, of which the head office is in Lisbon. This bank was founded in 1864 and received a fresh charter in 1901, which expired in 1911 but has been twice renewed pending the report of a Commission appointed to investigate colonial banking generally. In return for the privilege of issue, the bank undertakes, free of charge to the State, the duties of Government treasurer wherever it may have a branch or agency in Portuguese territory. Its notes are only current at face value in the province where issued. Its capital is Esc. 12,000,000, of which Esc. 7,200,000 were paid up in 1914. Its reserve fund in 1915 was raised to Esc. 3,350,000.

(E) GENERAL REMARKS

There is little to add to what has already been said as to the various aspects of the economic life of the colony. The complete pacification of the country and the conciliation of the tribes which may show signs of becoming amenable to civilization must precede all other developments; until this has been done, European activities will continue to be restricted to a narrow

fringe of the coast, and the interior will remain a constant menace to the colonist.

Among the European industries which could count upon success are the making of bricks, tiles, and other materials of construction, the extracting of oil from palm fruits and oil-seeds, and the preparation of frozen meat for European markets.

APPENDIX

CONVENTION BETWEEN FRANCE AND PORTUGAL, MAY 12, 1886

ARTICLE I

IN Guinea, the frontier which shall separate the Portuguese from the French possessions will follow, in accordance with the tracing upon Map I, which is annexed to the present Convention¹:

In the north, a line which, starting from Cape Roxo, will keep, as far as the nature of the ground will permit, at an equal distance from the Rivers Casamance (Casamansa) and San Domingo de Cacheu (São Domingos de Cacheu) to the point of intersection of $17^{\circ} 30'$ longitude west of Paris with the parallel $12^{\circ} 40'$ of north latitude, between this point and 16° of longitude west of Paris the frontier shall be merged in the parallel $12^{\circ} 40'$ of north latitude.

In the east, the frontier will follow the meridian of 16° west from the $12^{\circ} 40'$ parallel of north latitude to the $11^{\circ} 40'$ parallel north latitude.

In the south, the frontier will follow a line starting from the mouth of the River Cajet which lies between the Island of Catack (which will belong to Portugal) and the Island of Tristão (which will belong to France), and keeping, as far as the nature of the land permits, at an equal distance between the Rio Componi (Tabati) and the Rio Cassini, then between the northern branch of the Rio Componi (Tabati) and at first the southern branch of the Rio Cassini (tributary of the Kacondo), afterwards the Rio Grande, until it reaches the point where the 16th meridian of west longitude cuts the parallel $11^{\circ} 40'$ of north latitude.

Portugal will possess all the islands included between the meridian of Cape Roxo, the coast, and the southern boundary formed by a line following the thalweg of the River Cajet, and afterwards turning towards the south-west across the Passe des Pilots, where it reaches $10^{\circ} 40'$ north latitude, and follows it as far as the meridian of Cape Roxo.

¹ This map was not published with the Convention.

ARTICLE II

His Majesty the King of Portugal and Algarves recognizes the French Protectorate over the territories of Fouta-Djallon, such as it was established by the Treaties concluded in 1881 between the Government of the French Republic and the Almamys of Fouta-Djallon¹.

The Government of the French Republic, on its side, binds itself not to attempt to exercise influence within the limits assigned to Portuguese Guinea by Article I of the present Convention. They further bind themselves not to modify the treatment which has always been extended to Portuguese subjects by the Almamys of Fouta-Djallon.

¹ See *State Papers*, Vol. 75, pp. 336, 337.

AUTHORITIES

HISTORICAL

Official Publications, etc.

- Anuario Colonial*. Lisbon, 1916.
 British Diplomatic and Consular Reports: *Angola*, 1908;
Portuguese Guinea, 1913. London, 1909, 1915.
Colecção dos decretos promulgados em 1916. Lisbon, 1917.
White Books on Contract Labour in Portuguese West Africa,
 1912, 1913, 1914, 1917.

GENERAL

- ALMADA NEGREIROS, A. L. DE. *Les Colonies portugaises*. Paris.
 [1908.]
 BARROS, JOÃO DE. *Decadas da Asia de João de Barros*. 4 vols.
 Lisbon and Madrid, 1553–1615. 2nd ed. Lisbon, 1778–88.
 CADAMOSTO, L. DI. *Navigazioni di Alvisè da Ca'da Mosto*. Venice,
 1550. English Translation in *A New General Collection of
 Voyages and Travels*, Vol. I. London, 1745–7.
 CADBURY, W. A. *Labour in Portuguese West Africa*. London,
 1907.
 CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portu-
 guezas*. 2nd ed. Lisbon, 1903.
 — *Archipelago de Cabo Verde*. Lisbon, 1916.
 EANNES DE AZURARA, G. *Chronicado descobrimento e conquista
 de Guiné*, 1453.
 — *Discovery and Conquest of Guinea*. Lisbon, 1453. Trans.
 and ed. by E. Prestage and C. R. Beazley. 2 vols. Hakluyt
 Society, London, 1898.
 FONSECA, A. L. DE. *A Guiné Portuguesa*. Lisbon, 1917.
 JOHNSTON, SIR H. H. *The Negro in the New World*. London,
 1910.
 — *The Colonization of Africa by Alien Races*. Cambridge,
 1913.
 MADROLLE, CLAUDIUS. *Fodé Silah et les Iolas de la Casamance*
 (Revue de Géographie, Vol. xxxiv). Paris, 1894.

- MAJOR, R. H. *The Discoveries of Prince Henry the Navigator*. 2nd ed. London, 1877.
- PEREIRA, CARLOS. *La Guinée Portugaise*. Lisbon, 1914.
- SENNA BARCELLOS, C. J. DE. *Subsidios para a historia de Cabo Verde e Guiné*. Lisbon, 1899–1911.
- ULRICH, RUY ENNES. *Politica Colonial*. Coimbra, 1909.

ECONOMIC

- Anuario Colonial*. Lisbon, 1916.
- British Diplomatic and Consular Reports: *Portuguese Guinea*, 1913. London, 1915.
- CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portuguezas*. 2nd ed. Lisbon, 1903.
- Colecção dos decretos promulgados em 1916*. Lisbon, 1917.
- FONSECA, A. L. DE. *A Guiné Portuguesa*. Lisbon, 1917.
- *Guiné: Alguns aspectos ineditos da actual situação da colonia* (Boletim da Sociedade de Geographia de Lisboa). Lisbon, 1914.
- *A Guiné Portuguesa, subsidios para o seu estudo* (Jornal do Comercio e das Colonias). Lisbon, 1914.
- JOHNSTON, Sir H. H. *The Negro in the New World*. London, 1910.
- MADROLLE, CLAUDIUS. *Fodé Silah et les Iolas de la Casamance* (Revue de Géographie, Vol. xxxiv). Paris, 1894.
- MARVAUD, ANGEL. *Le Portugal et ses Colonies*. Paris, 1912.
- MEYER, Prof. Dr HANS. *Das Portugiesische Kolonialreich*. Berlin, 1918.

MAPS

Portuguese Guinea is covered by the War Office General Map of West Africa (G.S.G.S. 2434), on the scale of 1:6,336,000 (1903, additions 1914, boundaries corrected 1919). The War Office Map of Africa, on the scale of 1:1,000,000 (G.S.G.S. 1539), sheets 58–70 (old numbering), only shows the southern part of the country.

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TABLE OF CONTENTS

	PAGE
I. GEOGRAPHY PHYSICAL AND POLITICAL	
(1) Position	1
(2) Surface, Coasts, and Rivers	
Surface	1
Coasts	2
Rivers	2
(3) Climate	2
(4) Sanitary Conditions	3
(5) Race and Language	3
(6) Population	4
II. POLITICAL HISTORY	
Chronological Summary	5
(a) Discovery and Naming of the Islands	5
(b) History of San Thomé	6
(c) History of Principe	8
(d) Ajuda	8
III. SOCIAL AND POLITICAL CONDITIONS	
(1) Religious	10
(2) Political	10
(3) Educational	11
IV. ECONOMIC CONDITIONS	
(A) MEANS OF COMMUNICATION	
(1) Internal	
(a) Roads, Paths, and Tracks	12
(b) Rivers	13
(c) Railways	
General	13
Adequacy to Economic Needs	15
(d) Posts, Telegraphs, and Telephones	15
(2) External	
(a) Ports	
Accommodation	16
Nature and Volume of Trade	18
(b) Shipping Lines	18
(c) Cable and Wireless Communication	20

TABLE OF CONTENTS

[No. 119]

	PAGE
(B) INDUSTRY	
(1) Labour	
(a) Supply of Labour	21
(b) Labour Conditions	22
(2) Agriculture	
(a) Products of Commercial Value	23
Cocoa	23
Coffee	24
Kapok	24
Oil-bearing Palms	24
Rubber	25
Sugar	25
Bananas	25
(b) Methods of Cultivation	26
(c) Land Tenure	27
(3) Fisheries	28
(C) COMMERCE	
(1) Domestic	
(a) Principal Branches of Trade	29
(b) Organizations to Promote Trade and Commerce	29
(c) Foreign Interests and Economic Penetration	30
(2) Foreign	
(a) Exports	
Quantities and Values	32
Countries of Destination	32
(b) Imports	
Values and Countries of Origin	33
(c) Customs and Tariffs	33
(D) FINANCE	
(1) Public Finance	35
(2) Banking	35
(E) GENERAL REMARKS	37

APPENDIX

Table I. Inward and Outward Tonnage during 1909, 1912, and 1915	38
„ II. Contract Labour introduced into and repatriated from San Thomé and Príncipe, 1913-17	39

AUTHORITIES	40
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MAPS	41
----------------	----

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION

THE Portuguese islands of San Thomé and Principe (Ilha de São Thomé and Ilha do Principe) lie in that part of the Gulf of Guinea which is known as the Bight of Biafra. Principe, which is about 80 miles north-north-west of San Thomé, is 9 miles long, with an average breadth of 4 miles, and lies 120 miles from Cape San Juan in Spanish Guinea, between latitudes $1^{\circ} 42'$ and $1^{\circ} 32'$ north and longitudes $7^{\circ} 20'$ and $7^{\circ} 28'$ east. San Thomé, which is about 25 miles long and 15 miles broad, lies between latitudes $0^{\circ} 24'$ north and $0^{\circ} 1'$ south and longitudes $6^{\circ} 28'$ and $6^{\circ} 46'$ east. The area of the two islands is about 320 square miles.

(2) SURFACE, COASTS, AND RIVERS

Surface

Both islands are of volcanic formation. In the north of San Thomé the old craters are well preserved, and in the south there are great volcanic dikes, but from whatever point it is viewed the island appears as a chaos of mountains cut up by deep ravines. It reaches its highest point in Pico de San Thomé (7,021 ft.). In the north and north-east there are considerable tracts of low-lying ground.

Principe is similar in structure. The northern part, though lofty, is tame compared with the southern, which consists of steep and rugged mountains surrounded by gigantic natural obelisks of most fantastic shapes, the whole culminating in a peak 3,050 ft. above sea-level. In the vicinity of the rivers and in the lowlands near the coast there is much marshy ground.

Coasts

The most characteristic feature of the coast of San Thomé is the alternation of rocky promontories and sandy bays. Off it there are several islands. San Thomé is somewhat difficult to approach.

The coast of Principe is similar in character to that of San Thomé, and Santo Antonio Bay, on the east coast, is the most important inlet in the island. A number of rocky islets lie at varying distances from the coast.

Rivers

Both islands contain many streams, which all rise upon the mountains and descend as torrents, forming numerous waterfalls on the way.

(3) CLIMATE

In San Thomé the south-western districts receive rain at all seasons of the year, but the north-eastern have a well-marked dry season from June to September. During the remainder of the year, as the winds blow over the warm Guinea current, the region in question receives a heavy rainfall. On the greater part of the mountain region rain falls at all times of the year.

The town of San Thomé on the north-east coast appears to have a rainfall of about 50 inches (1,270 mm.), and Monte Café, at a height of 2,263 ft., one of 100 inches (2,540 mm.). In the more exposed parts of the island the yearly precipitation is probably twice or three times as much.

The temperature is high and fairly uniform throughout the year. The town of San Thomé has a mean annual temperature of about 77° F. (25° C.), with a range of 4° or 5° F. (2.2° to 2.8° C.) between the hottest and coldest months. On Monte Café the mean annual temperature is about 69° F. (20.5° C.), and the annual range between 6° and 7° F. (3.3° and 3.9° C.).

The climatic conditions of Principe are, on the whole,

similar to those of San Thomé. July and August are dry, while the remainder of the year is hot and humid.

(4) SANITARY CONDITIONS

The low coast land of San Thomé is very unhealthy for Europeans, but in the higher parts of the country good health may be enjoyed. In the town itself health conditions are very bad ; there are no sanitary arrangements, and the water-supply is very impure. Common ailments, alike among Europeans and natives, are black-water fever, pneumonia, dysentery, malaria, enteric, phthisis, and sleeping-sickness.

Sleeping-sickness was at one time the scourge of Príncipe, but owing to preventive measures the island was in October 1914 officially declared to be free of the disease.

(5) RACE AND LANGUAGE

The natives are of mixed origin. They are descended from Portuguese convicts and young Jews, who were among the original settlers, free colonists from Portugal, and slaves from Gabun and other parts of the Guinea coast. The Portuguese and Jews at least appear to have intermarried, and their descendants form a dark-skinned indolent race, to which the term 'native' is generally applied. In the west of San Thomé there are about 2,000 Angolares (see p. 7).

The labour imported for the development of the cocoa industry within recent years from the Portuguese colonies in other parts of Africa does not form a permanent element in the population, as the immigrants are now repatriated when their contracts expire.

The European population is mainly drawn from Portugal.

Portuguese is the official language, but it is spoken by only a small part of the population. The natives use a Negro-Portuguese language peculiar to the islands. The Angolares retain their old Bunda form of speech, and the *serviçaes*, or indentured labourers

imported from the mainland, speak the Bantu dialects of the districts from which they have come.

(6) POPULATION

In 1914 the population of San Thomé and Príncipe numbered 58,907, composed as follows :

<i>San Thomé.</i>	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Europeans and half-castes .	1,323	78	1,401
Natives	9,633	10,118	19,751
<i>Serviçaes</i>	23,341	9,476	32,817
			<hr/> 53,969
 <i>Príncipe.</i>			
Europeans and half-castes			169
Natives			550
<i>Serviçaes</i>			4,219
			<hr/> 4,938
		Total	58,907

The density of population in San Thomé is thus about 105 to the square mile and in Príncipe about 112. In 1916 unofficial Portuguese sources placed the number of inhabitants of San Thomé at 40,000 and of Príncipe at 3,000. These figures suggest a different basis of calculation, but it is also possible that the population may have declined. In San Thomé the majority of the natives are found in the town of the same name and in seven or eight villages in the eastern half of the island. The Angolares are found mainly on the south and west coasts. The *serviçaes* live upon the *roças* or plantations which are distributed throughout the island.

Santo Antonio is the only place in Príncipe which merits the name of town, and the bulk of the native population is settled in and about it.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1471 to 1481. Discovery of San Thomé and adjacent islands.
1493. First colonization of San Thomé, and introduction of sugar.
1520 (*circa*). Sugar-cane introduced into Principe.
1567. San Thomé attacked by the French.
1600. San Thomé attacked by the Dutch.
1641-4. San Thomé taken and held by the Dutch.
1680. Ajuda (Whydah) first occupied.
1693. Slave outbreak in San Thomé.
1709. Second French attack.
1735. Government moved from San Thomé to Principe.
1778. Fernando Po and Anno Bom (Annobon) ceded to Spain.
1822. Cocoa cultivation introduced.
1844. Ajuda reoccupied.
1852. Capital of San Thomé and Principe brought back to Anna de Chaves in former island.
1876. Slavery in San Thomé and Principe abolished, and system of apprenticeship substituted.
1886. Portuguese protectorate declared over Dahomey sea-coast.
1887. Portuguese protectorate withdrawn.
1892. Dahomey (including Ajuda) under French protection.
1911. The apprenticeship system discontinued.

(a) DISCOVERY AND NAMING OF THE ISLANDS

THE chain of islands in the Bight of Biafra (or the Gulf of the Mafras in its original Portuguese form) were discovered by Portuguese explorers before the end of the reign of King Affonso V, who died in the year 1481. De Barros states that he was unable to trace the exact dates of the discovery of San Thomé, Principe, and Anno Bom (Annobon), but the island now known

as Fernando Po was found by Fernão do Po in 1478 and named by him Formosa (beautiful). His own name was afterwards given to this island. Other accounts attribute the discovery of San Thomé and Fernando Po to João de Santarem and Pedro d'Escobar on December 21, 1470 (or 1471), of Anno Bom (Happy New Year) on January 1 of the next year, and of Principe on the 17th of the same month. These four islands remained subject to Portugal till October 24, 1778, when Fernando Po and Anno Bom were ceded to Spain in exchange for certain concessions made to Portugal by the Treaty of El Pardo.

San Thomé and Principe are still Portuguese colonies. The first-named received its name from being discovered on St. Thomas's Day, and the second from the Prince, eldest son of King Affonso V.

(b) HISTORY OF SAN THOMÉ

The colonization of San Thomé began in 1493, and the settlers seem to have been mainly convicts and Jewish boys who had been taken from their parents. From these and from freed slave-women the native element of the population is said to be largely derived. From the beginning cultivation depended on slave labour. There is no aboriginal element, all these islands having been uninhabited when discovered. Sugar was the principal crop and prospered exceedingly, so much so that by the middle of the sixteenth century the population amounted to 50,000 on an area of 400 square miles, a great part of which is mountain. At the same time there are said to have been 80 sugar-mills.

This prosperity as usual attracted raiders. French ships plundered San Thomé in 1567 (probably the raiders under Montluc who had attacked Funchal in Madeira in October 1566). The Dutch did the same in 1600, but their most serious visitation took place at the same time as their conquest of Loanda. The whole of this expedition seems to have been inspired by the desire to obtain command of the slave-market. San Thomé was held by

the Dutch from 1641 to 1644, and even then they are said to have been heavily bribed to leave the island. The French took the town of Anna de Chaves in 1709, burnt it, and exacted a large sum from the inhabitants. San Thomé also suffered at intervals from slave revolts, and had great trouble with a race known as Angolares, who were descended from a number of Angola slaves wrecked some time between 1520 and 1540 on a part of the island, where they settled and multiplied. The last of these outbreaks was subdued in 1693.

The principal cause of the decline of San Thomé was, however, the great development of sugar cultivation in Brazil, which led to a large emigration of owners and their slaves to that country. Both this island and Príncipe gradually fell into decay, and at last came to exist almost entirely by provisioning slave-ships. They were nicknamed for this reason 'the inn' (*a estalagem*) of the Gulf of Guinea. The Government was removed from San Thomé to Príncipe in 1735 and was not brought back till 1852.

The abolition of the slave-trade brought about the complete ruin of these islands. The last slaves were liberated in 1875, and slavery was abolished in both islands by a royal decree of February 3, 1876.

The fine soil and natural capabilities of San Thomé, however, led to the introduction of several staples which were found suitable. Rubber, cinchona, coffee, and cocoa all prospered, but cocoa, first introduced in 1822, gradually almost monopolized the energies of the island. It rises to a height of over 7,000 ft. in the Peak of San Thomé, and, although under the equator, almost every variety of climate can be found on the slopes between the summit and the sea. The cocoa-plantations in this island and Príncipe were said in 1913 to supply over one-sixth of the cocoa consumed in the world. During the last few years the development of cocoa cultivation on the Gold Coast has produced a rival to this important industry. The cultivation of cocoa on the Gold Coast, introduced in 1891, had

by 1916 developed to such an extent that the production was over 72,000 tons, more than a third of the cocoa production of the world.¹ It does not seem probable, therefore, that San Thomé will recover its former superiority in this important trade.

(c) HISTORY OF PRINCIPE

Principe shared in the history of San Thomé, and in its early prosperity. The Portuguese first planted the sugar-cane and ginger in the island about 1520. It is only about one-seventh of the size of the larger island, and has no high mountain region, and does not therefore share its advantages of climate. The centre of the administration of the two islands was, as already stated, removed to Principe in 1735, and remained there for more than a century.

Like San Thomé it has suffered from raids. In 1706 the French took the fort and did much damage to the island, and it was again occupied by the French in 1799. It shared in the decay of San Thomé, and has not rallied so quickly, but the cultivation of cocoa has made some progress.

(d) AJUDA

An isolated settlement in Dahomey, São João Baptista d'Ajuda, known to English mariners as Whydah (Widah, French Ouidah), was incorporated in the province of San Thomé and Principe in 1680, but was soon evacuated by the Portuguese. It was re-occupied by them in 1844, but the need of a labour-supply from Dahomey obliged the Portuguese to make concessions to the King of that State. On August 5, 1885, a treaty was concluded between Dahomey and Portugal, by which the latter secured the port of Adra, giving access to the fort; and on January 21,

¹ See Sir Hugh Clifford's article in *Blackwood's Magazine* for January 1918.

1886, Portugal declared a protectorate over the Dahomey sea-coast, but withdrew this again on December 22, 1887. Finally, on December 3, 1892, Ajuda and other districts were definitely annexed by France.¹

¹ See Hertslet, *Map of Africa by Treaty*, pp. 648-51. Portugal still claims that the fort of Ajuda is an 'administrative dependency' of San Thomé and Príncipe, and maintains a resident there (Carvalho e Vasconcellos, *Portugal Colonial*, p. 39). The *Atlas Colonial Português* (1914) marks a Portuguese fort at Ajuda and the *Annuário Commercial* (1918) refers to the commandant of the fort. See also *Dahomey*, No. 105 of this series, pp. 8-10.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE religion of the islands is Roman Catholicism. They form part of the ecclesiastical province of Lisbon. In all Portuguese possessions there is no longer any State maintenance of religion.

(2) POLITICAL

The two islands form one province under a Governor whose head-quarters are at the town of Anna de Chaves (sometimes simply called St. Thomas). Principe is under a Lieutenant-Governor (*administrador*). The Governor is assisted by a Council. The Courts of Justice are subordinate to the District Courts at Loanda.

The system of indentured labour or apprentice (*serviçal*) system, introduced for the cultivation of cocoa in place of slave labour, was most objectionable. It was most injurious to the countries where recruitment took place, viz. Angola, parts of the Congo State, and north-west Rhodesia. In theory the indentured labourers were ransomed captives of native chiefs, but though in San Thomé itself, as a rule, the *serviçaes* were well treated, the system grew into something indistinguishable from slavery, and had to be abandoned after much energetic criticism, from Great Britain in particular. Since 1911 matters have improved. Recruitment under the old conditions has stopped, and free labour is obtained from Mozambique for good wages. The repatriation of the older *serviçaes* is gradual, but seems, on the whole, to be proceeding steadily.

(3) EDUCATIONAL

There are primary schools for both sexes in the chief town of each island. Special schools are also maintained on the principal cocoa estates, at the expense of their owners, for the *serviçal* children. Some of these are well equipped, and reach a creditable standard as primary schools. The crèche is a feature of all these estate schools.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads, Paths, and Tracks*

COMMUNICATIONS generally are very bad. For the most part the roads radiate from the chief town (*cidade*) of each island, linking up the outlying villages, which in their turn are connected, by means of feeder roads or bridle-tracks, with the head-quarters and outposts (*dependencias*) of the various *roças* or plantations. The roads from the town of San Thomé to the villages of Trindade, in the interior, Santo Amaro in the north, and Santa Anna in the south, may be taken as types of the best in that island. These roads are roughly metalled for the first two or three miles of their course, but when they have passed the villages they degenerate into cart-tracks, except where private interests keep them in reasonable repair. During the rains they become water-courses rather than roads, and as a result are further encumbered by the slab rock and boulders laid bare by the floods that scour down them. Where they cross forest land, cleared or uncleared, the great depth of moist humus and the steep gradients present terrible impediments to the traveller, who often in such cases has to leave the track and climb through the forest.

In Principe the standard of road-making is even lower than in San Thomé.

Neglect of communications on the part of the Government has long been a subject of bitter complaint by the planters and traders of the islands. For twenty years or more the Public Works of the province have been in charge of a Technical Board, whose functions seem

to have been mainly advisory, but about 1913 or 1914 an Administrative Council was formed to assist the Governor and to serve as a nucleus of self-government. To this Council was assigned 25 per cent. of the local revenue, then estimated at 390,000 *escudos*¹ per annum, so that, in 1914, 97,500 *escudos* were allotted to the Public Works Department. Five major items of expenditure were set down under this head in the budget estimates of the year, one of these being the improvement of the highways, but as the total assignment included the pay and allowances of the Board, amounting to 55,000 *escudos* per annum, it is clear that no very large sum remained for road-making.

(b) *Rivers*

The rivers are mountain torrents, but this circumstance, which prevents them from being of use for navigation, at the same time secures the clearing of their mouths from obstructions, so that their estuaries in many cases require but little aid from art to become useful and safe shelters for small coasting craft, both sailing-vessels and light-draught steamers. This advantage is freely turned to account, as many estate owners ship their produce direct from their own jetties to the capital, where it can be placed on board the home-going steamers, or, in the case of San Thomé, the weekly coasting boat.

(c) *Railways*

General.—The only State railway is that in San Thomé. Its first section, about 9 km. in length, from the town of San Thomé to the village of Trindade, was opened in 1913. Its terminus in the capital is at the wharf adjoining the fort and lighthouse of San Sebastião, and it is connected by a short branch with the Customs harbour in the centre of the town. The gauge is 1 metre. The gradients are very steep. The

¹ Nominally the *escudo* (Portuguese dollar) = 4s. 5½d. But see foot-note, p. 32.

line is worked by steam traction, using wood fuel obtained locally. There are two trains daily each way, carrying goods and passengers. The rolling stock is quite inadequate, consisting of one 12-ton and two 72-ton locomotives, three passenger coaches, twelve freight cars of 50 tons capacity, and two mail cars, all made in Germany.

Since 1913 the main line has been extended by $4\frac{1}{2}$ km., and its railhead is now beyond Nova Java on the way to Traz-os-Montes estate. Ultimately it is to be prolonged to San Miguel, on the western coast of the island, and its total length of main line will then be some 40 km. Surveys have been made for two branch lines. One is to run to the village of Madalena, to the north of Trindade, in a fertile planting district, and thence to the head-quarters of Monte Café, a length of 6 km. in all. The other is to strike south to Montes Herminios, about 9 km. south-east of Trindade. The former line is reported to be under construction, but with the latter no progress seems to have been made beyond preliminary demarcation. The whole system, when completed, will not exceed 52 km. in length.

Almost all the large estate owners possess their own railways. Those near the capital run their lines into town, and those at a distance, when they have access to the sea-board, extend their network of railways from the remoter *dependencias* to the estate head-quarters, and thence to the boat, launch, or steamer harbours, which they own or share. The lines are generally of metre gauge, on the Decauville system, the materials being obtained from Belgium, where before the war the makers had their export factory. Three or four of the very large proprietors, however, own lines of 1.3 metre gauge, with steam traction, on which they use wood fuel. Rio de Ouro, the most important of the Marquez de Valleflor's estates in the islands, has 12 kilometres of line of this kind, connecting estate head-quarters with his private wharves. Ubo Budo and Agua Izé, large estates to the south of San

Thomé town, have similar private lines, each about 6 kilometres long, with steam traction. All three have in addition a network of light Decauville railways, serving all parts of the estates. It is not unusual for an estate to possess from 40 to 75 kilometres of private line.

Adequacy to Economic Needs.—How far, if at all, the costly State enterprise in railways has been desirable in the general interests of the colony is still an open question. General Count de Souza e Faro, a colonial engineer of long experience, who has made the requirements of the island his special study, in 1909 published a monograph¹ discussing this project, among other matters. In his opinion, private railways on the Decauville system, such as are to be found on every estate of importance, and the existing coasting service, hitherto found adequate, met all reasonable requirements, and were less costly to the majority of those concerned than State lines. No doubt a few centrally situated estates, such as Monte Café, which have no access to the coast and are therefore compelled to send their produce over bad roads by cart or by carrier, find the public service very useful.

As cultivation extends, it is probable that the private, rather than the State railway system, will expand to keep pace with it. Radical changes in the management of the latter are necessary, if the confidence of the planting community is not to be forfeited. The leading planters, however, display no great eagerness for any large expansion of the present area of cultivation. Nearly half of the island is already under crops, and they fear the deterioration of the soil and climatic conditions consequent upon the extensive forest fellings which would be necessary if cultivation were extended.

(d) *Posts, Telegraphs, and Telephones*

There are post offices at San Thomé town and at Santo Antonio do Principe, from which deliveries are

¹ *A Ilha de S. Thomé e a Roça Agua Izé.* Lisbon, 1909.

made to the inhabitants of the town districts and to the agents of the up-country planters, who fulfil the functions of a post office by receiving and forwarding their employers' correspondence and papers. The system is very much the same as that adopted in the case of the remoter rubber estates in Ceylon and Malaya. The colony has no internal service of telegraphs open to the public, but the postal telephone service is general all over the island and keeps the estates in touch with the business houses and town residents. It is not liable to greater interruptions than are usual in the tropics, though of course storms and landslips often cause damage.

(2) EXTERNAL

(a) Ports

Accommodation.—San Thomé has several ports capable of sheltering vessels of ocean-going dimensions. The *Bay of Anna de Chaves*, round which the town of San Thomé is built, is the principal port of call by reason of its trade and harbour facilities. It suffers, however, from the disadvantage of exposure to hurricanes from the north-east during the months of January to March. The bay is semicircular in form, and the distance between its south-eastern and its north-western horn is slightly over 2 kilometres. The fort and lighthouse of San Sebastião are on the former point, and a redoubt known as San João occupies the latter, whilst the Customs pier runs from the shore at the centre of the bay. The bottom, which is sandy, shelves uniformly from a depth of about 2 metres at the pier to 7 at the entrance of the bay. Thus the pier and wharves are accessible only to small boats, launches, and lighters. Ocean-going steamers prefer to anchor opposite the fort, where there is a depth of 7 metres close in to the shore, and the lighthouse pier is more accessible. Both piers have the usual equipment of cranes and rails for wagons. There is a small shipbuilding yard to the north of the Customs

wharves, where construction and repair of lighters, boats, and small craft are carried on.

A better anchorage is that of the *Angra de San João*, near the village of Santa Cruz, 20 miles to the south; but this is at present of little use, because suitable land communication is not available.

San Miguel, a natural harbour, defended by two or three islets, lies on the west coast of the island of San Thomé, almost on the same parallel as the Angra de San João. It was surveyed in 1892 by Commander Pinto Basto of the Portuguese gunboat *Limpopo*, who brought his ship in and cast anchor in 4 fathoms not far from its inner shore. He describes it as a deep bay well protected from the west, with a bottom of fine dark sand, and a width of about a quarter of a nautical mile. This bay will no doubt come to more prominent notice when the projected railway across the island reaches it.

There is a man-of-war roadstead to the north of San Thomé island, opposite *Morro Peixe*, about a mile off shore, which, as compared with the Bay of Anna de Chaves, has the advantage that the north-eastern gales blow clear out to sea and not directly on the shore. It has a sandy bottom at 7 fathoms.

Príncipe is better off than San Thomé in the matter of harbours, a fact which doubtless weighed with the Portuguese when they transferred the seat of government to the former island in 1735, and kept it there for the following century. The *Bay of Santo Antonio*, in the north-eastern section of the island, gives complete shelter from all prevailing winds except the north-eastern gales referred to above. This natural harbour opens out to a width of 2 kilometres between Points Capitão and Praia Salgada, north and south respectively, but has no great depth of water, and contains some sand-banks. Good anchorage is available between the outermost points, on a bottom of stiff tenacious clay, in 6 to 7 fathoms of water; farther in is still better shelter in 4-5 fathoms between Ponta da Mina and the island of Santa Anna do Roque.

Nature and Volume of Trade.—The ports of San Thomé and Santo Antonio do Principe serve the entire needs of their respective islands, the other harbours being merely private landing-places for the estates and villages in their vicinity. These ports were visited in 1911 by 123 merchant vessels of 317,908 tons, and in 1914 by 133 merchant vessels of 421,381 tons. Further details will be found in Table I of the Appendix (p. 38).

The following table shows the total values of exports and imports passing through these ports from 1910 to 1915:

EXPORTS.

	<i>Total.</i>	<i>To Portugal.</i>
	<i>Escudos.</i>	<i>Escudos.</i>
1910	8,965,142	8,902,454
1911	7,615,445	7,492,493
1912	7,372,289	— ¹
1913	8,101,585	— ¹
1914	7,416,070	— ¹
1915	6,268,619	— ¹

IMPORTS.

	<i>Total.</i>	<i>From Portugal.</i>
	<i>Escudos.</i>	<i>Escudos.</i>
1910	3,180,061	1,590,643
1911	3,506,927	1,739,834
1912	3,362,947	1,930,693
1913	4,108,225	2,398,063
1914	3,789,994	2,235,810
1915	4,190,780	2,916,784

It will be noticed that over 98 per cent. of the exports go to Portugal, while from 50 to 70 per cent. only of the imports come from that country. The reason for this is the practical monopoly of the export trade enjoyed by the Companhia Nacional de Navegação, as explained in the next section.

(b) *Shipping Lines*

The San Thomé harbours are visited weekly by a small steamer of 300 tons burden belonging to the

¹ Figures are not available for these years.

Empresa Nacional de Navegação, now (1918) reconstructed under the style of the Companhia Nacional de Navegação. This is a Lisbon shipping company which does most of the coasting and European trade of Portuguese Africa. The only direct and regular communication between San Thomé and Principe is by the slow boats of the Companhia Nacional on their fortnightly voyages to and from Portugal. These vessels on their outward journey take cargo from the islands to Cabinda, Santo Antonio do Zaire, Ambriz, and Porto Alexandre, and on their return voyage cargo for Praia de San Thiago and Funchal.

Communication between Fernando Po and Santo Antonio do Principe is maintained by a small steamer of the Compañía Trasatlántica de Barcelona, timed to connect with the outward and homeward vessels of the Companhia Nacional, to and from which it trans-ships passengers and mails. Before the war, vessels of Elder, Dempster & Co. and the Woermann Linie used to call at San Thomé, thus linking up the colony with Liverpool and Hamburg respectively.

The Companhia Nacional de Navegação occupies a privileged position as regards the export trade of the islands, and to a less extent as regards their import trade also, in consequence of the legal fiction by which the navigation of the Portuguese West African colonies is treated as coasting trade, so as to exclude all but vessels under the national flag and make Lisbon an exclusive entrepôt for the colonial produce. In practice, since there is no competing Portuguese line, this means a monopoly for the Companhia Nacional. A further restriction arises from the operation of the tariff (cf. p. 33), which, by imposing heavy extra export duties on goods carried in foreign vessels, makes unprofitable any attempt to open up a direct trade between the colony and a foreign country. As a result, while a certain number of vessels may and do bring cargo for the islands from foreign ports, few if any foreign vessels ever obtain homeward cargo there.

For some years past, the carrying power of the

Companhia Nacional de Navegação has been found inadequate to Portuguese colonial requirements; and, as the trade of San Thomé ranks third in order of importance, this colony has taken an active part in agitating for the removal of restrictions. After Germany's declaration of war upon Portugal, the arguments employed were reinforced by the fact that several vessels of the line had been taken over for military transport work, reducing the sailings in number and regularity. Meanwhile, a new shipping company, projected to utilize the available vessels of the German interned fleet seized by Portugal in 1916, has announced its main object to be transatlantic trade with Brazil rather than service in the interests of the Portuguese African colonies.

(c) Cable and Wireless Communication

The West African Telegraph Co. have a cable station at San Thomé, and employ four Europeans (British), including a superintendent, and about ten native operators. The latter, for the most part, are Sierra Leone Africans, with occasionally an Accra man, and all are British subjects. There are two cable lines connecting the islands with the African mainland, and thence with the rest of the world. One of these runs north from San Thomé to Principe, and on by Bonny, Lagos, and other West African ports to St. Vincent in the Cape Verde Islands and to Madeira, terminating at Carcavellos in Portugal. The other line runs south to Loanda, Benguella, and Mossamedes, and thence to Cape Town; a new branch of this line gives a connexion with Banana.

There is no wireless installation in either island, but in the budget estimate for 1917 there was an assignment for this purpose.

(B) INDUSTRY

(1) LABOUR

(a) Supply of Labour

The majority of the Portuguese resident in San Thomé and Príncipe either belong to the official classes or are engaged in the cocoa industry. Practically all agriculture is in Portuguese hands. Owing to climatic conditions they do not settle permanently in the islands.

The natives, apart from the Angolares (see p. 7), are scattered over the province in small groups or in isolated families. A few of the better educated engage in agriculture or business, but the majority prefer to do nothing. The abundance of natural products enables them to obtain their food with little or no difficulty, while the warm climate reduces demands for housing and clothing to a minimum. A certain number of natives are employed on the cocoa plantations, but as a general rule work there is regarded as derogatory. Intemperance is said to prevail.

The Angolares are a strong and vigorous people, but are more or less nomadic, and will not engage in regular labour. The chief service which they perform is the clearance of forest areas required for plantations. This work suits them, as they are paid by the piece, and can vary their hours as they choose.

For a number of years the cocoa-planters obtained their labour mainly from Angola, but the conditions under which it was engaged were considered so unsatisfactory that the Portuguese authorities were for some years compelled to suspend recruiting in that province. In 1908, 2,099 labourers were imported from Angola, 1,466 from Mozambique, and 132 from Cape Verde, while 4,036 were repatriated to Mozambique, and 64 to Cape Verde. During the following three years importations from Angola were suspended, but 8,757 labourers were brought to San Thomé from Mozam-

bique, and 572 from Cape Verde. On the other hand, during the same period, 1,939 were returned to Angola, 1,719 to Mozambique, and 442 to Cape Verde. Those from Angola are recruited in the first instance for two or three years. In 1908 one-year contracts were introduced for labourers from Mozambique. Table II in the Appendix indicates the movement of labour under present conditions.

The recruiting of labourers for the islands is now conducted by the agents of the Sociedade de Emigração para São Thomé e Príncipe. This is a limited liability company, not working for profit, with a registered capital of 20,000 escudos and a membership restricted to estate owners in the two islands. Its functions are similar to those of the Witwatersrand Native Labour Association in the Transvaal. It undertakes the recruiting and contracting of labourers in the African continent and in Cape Verde, their conveyance to the islands in conformity with conditions laid down by law, and their distribution to the planters whose indents it executes. It has been in existence only since June 1914, but by December 1916 had supplied no less than 22,330 hands to its members. Repatriation of the labourers at the expiry of their contracts is carried out by the Curador, a Government official exercising magisterial powers. He supervises all arrangements affecting the immigrants from their arrival in the islands to their final departure, including payment to them of their bonus or savings on arrival at their homes.

(b) *Labour Conditions*

The *serviçaes*, or indentured labourers, live under artificial conditions which vary from time to time and place to place. On some of the *roças* (plantations) they occupy huts built in the native fashion, but in most cases they are quartered in large barrack-like buildings or in rows of wooden houses raised on stone foundations. Their food is provided for them, but, in addition to their rations, they are as a rule allowed to gather the

fruits which grow in abundance on all plantations. Nearly every *roça* has its hospital, and on some schools have been provided. On the whole the labourers seem to be well treated by their employers while on the plantations; the international difficulties regarding contract labour which have been recently settled arose from the fact that provisions for repatriation either did not exist or were totally inadequate.

Recent statistics indicate that the death-rate on the plantations is between 8 and 10 per cent., which, as it relates in the main to an adult population, is high. Among the children of *serviçaes* the death-rate is very high, and apparently the birth-rate does little more than balance it. The high death-rate is probably due chiefly to the changed conditions of life and work experienced by the imported labourers. Good quarters have been provided on many of the plantations, but it is questionable whether the natives of Angola and Mozambique are as healthy in them as they would be in huts made in the manner to which they have been accustomed. The chief causes of death are dysentery, pulmonary diseases, and tuberculosis. Accidents are also frequent, as the *serviçaes* are at first inexperienced with the tools they have to use. On the lowlands, malaria is prevalent, but it does not seem to affect the cocoa plantations seriously, as these are higher up.

(2) AGRICULTURE

(a) *Products of Commercial Value*

The principal products of the islands are cocoa, coffee, cinchona bark (yielding quinine), a highly variable quantity of oil-seeds and oil, and some minor products of little importance, such as sugar, caoutchouc, and kola.

Cocoa is the staple product of the islands, and gives them their exceptional value among the Portuguese colonies. Of the 225,500 metric tons of cocoa produced by the whole world in 1913 San Thomé and Principe

accounted for over one-sixth. The trade division of San Thomé cocoa is into three classes. The best is *Fino*, comprising the largest seeds, well fermented, of a dull red colour; these form four-fifths of the crop of a good estate, and fetched at Lisbon in 1917 an average price of 6.75 *escudos* for the *arroba* of 15 kg. *Paíol* consists of the smaller seeds, well fermented, or larger seeds with some slight blemish. The average price at Lisbon in 1917 for the *arroba* of 15 kg. was 6.10 *escudos*. The lowest class, *Escolha*, consists of badly fermented seeds, windfalls nibbled by rats, or blackened seeds found in withered pods. Its average price at Lisbon in 1917 was 5.10 *escudos* for the *arroba* of 15 kg.

Coffee.—San Thomé coffee is recognized to be of excellent quality, and the Portuguese market absorbs the entire output. The following table shows the prices of the different kinds of coffee in the Lisbon market during 1916–17:

Type.	Price per arroba of 15 kg.	Mean price for the year.
	<i>Escudos.</i>	<i>Escudos.</i>
Moka . . .	13	13
Fino . . .	6.70–12.50	10.30
Paíol . . .	5.50– 9	7
Escolha . . .	4.50– 5.60	5.05

In Principe coffee has never been a commercial success.

Kapok.—The oca (*Eriodendron anfractuosum*), a tree attaining gigantic proportions, is found all over the islands. From its seed-capsules is obtained *kapok* or silk-cotton, an article of considerable commercial importance.

Oil-bearing palms appear to be increasing in the islands, to judge from export returns both of raw materials and of the oil extracted from these on the spot. But no systematic cultivation is recorded. The African oil-palm (*Elaeis guineensis*) is indigenous.

The coco-nut palm¹ (*Cocos nucifera*) has already been acclimatized, and throughout the coast-belt of both islands are large tracts of land which might support coco-nut groves as in Ceylon, the Maldives, or the islands of the Mergui archipelago, where conditions of soil and climate are somewhat similar.

Rubber.—Several estate owners have experimented liberally in the cultivation of rubber, but with results none too encouraging. *Manihot glaziovii* (the Ceará rubber-tree) was the first to be introduced, and has overrun the islands like a weed. During the first two or three years of its growth it yields a copious latex, very poor in caoutchouc, but afterwards it seems to dry up, and is of no use except as firewood. *Castilloa elastica* and *Hevea brasiliensis* have both been tried, and grow vigorously, but the returns from these have also been disappointing. This may be due to imperfect acclimatization, but more probably is owing to the fact that the African cultivator is less methodical and intelligent than the Indian and Chinese coolies who work on the Ceylon and Malaya plantations. Moreover, the Portuguese estate owner, who has not had the opportunity of seeing for himself the concrete results of rubber-cultivation as practised in the East, is apt to devote all his energies to cocoa-growing, which he really understands, rather than to an industry with which he is unfamiliar.

Sorghum saccharinum grows throughout the coffee belt, but *sugar-cane* is cultivated only at a lower level in the southern and central portions of San Thomé, though it is reported to be doing well in the northern zone at a height of 680 metres.

One very promising experiment was tried in San Thomé in the years immediately preceding the war, namely, the preserving of the *banana*, either in the form of a fig, or as meal, by drying it in the mechanical cocoa-drier used on most of the estates. In 1909–13 the

¹ A confusion between the coco-nut palm and the oil-palm is apt to arise from the fact that the word *coconote* in Portuguese is applied not to the fruit of the *Cocos nucifera* but to that of the *Elaeis guineensis*.

preserved banana was an article of fairly general local consumption. The preserved banana found its way to Lisbon and was duly appreciated there. An attempt to bring it to notice in England failed, through the difficulty of placing a new and untried article on the British market except at a cost beyond the means of those interested in its production. The banana grows very freely in the islands, and its cultivation could easily be extended.

(b) Methods of Cultivation

Estimates as to the proportion of the islands under cultivation vary for lack of a proper survey, as explained below under Land Tenure (p. 28). It is stated in a German source that of the 825 square kilometres of surface in San Thomé, about 525 are cultivated, and in Principe 98 square kilometres out of 114, but it seems doubtful whether more than half the cultivated surface is efficiently worked.

On both islands three zones of cultivation may be distinguished, corresponding to the climatic conditions. The coast zone, up to 400 metres above sea-level, with a mean annual temperature of 82–86° F. (28–30° C.), is predominantly the region for cocoa; the middle zone, up to 800 metres, with an average temperature of 72–82° F. (22–28° C.), is characterized by the production of coffee; while in the upper zone, which rises to 2,000 metres and has an average temperature of 64–72° F. (18–22° C.), cinchona is grown.

The cocoa-plant will not bear fruit in paying quantities above 700 metres, and on the littoral it is peculiarly sensitive to sea-air and to high winds. Hence its most suitable elevation is from 150 to 400 metres. The plants require constant care up to their tenth year. Both islands have two cocoa harvests annually, the first known as that of St. John (March–April crop), the second the Christmas harvest (crop of October–November). The latter is the more important, and furnishes about two-thirds of the year's output.

The cocoa-plant has hitherto been remarkably free from insect pests; but a San Thomé local paper has recently drawn attention to an invasion on a large scale of a destructive insect described as the *rubrocincta*, and is urging the immediate dispatch of specialists to deal with the mischief before it becomes irremediable.

Coffee is planted at the higher levels simply because it pays better to grow cocoa on the lower. Coffee also would do better at a lower elevation. *Coffea liberica* in particular languishes above 500 metres, and above 700 metres ceases to bear. *Coffea arabica* has a wider range, but between 1,200 and 1,400 metres it becomes a woody tree, and its crop ceases to be worth gathering. The processes of coffee cultivation are similar to those in vogue in the British tropical colonies, with some local modifications. The industry attained its greatest prosperity about 1870, when it was first recognized that, though the prices obtained for cocoa were inferior to those for coffee, the former cost less to cultivate and prepare for market, and consequently gave a better return, acre for acre. Since then, the area under coffee has remained stationary, if indeed it has not shown a tendency to shrink.

(c) *Land Tenure*

In both islands the most notable feature is the predominance of large estates. Out of the total area of cultivated land, 76 per cent. belongs to individual owners of large estates, and 24 per cent. to companies essentially Portuguese. Nearly half of the island of Principe is owned by a single company, the *Sociedade d'Agricultura Colonial*. The *Companhia da Ilha do Principe* has its largest estates upon San Thomé, and produces yearly about 2,500 metric tons of cocoa. The biggest private estate, that of the Marquez de Valleflor, produces 3,500 metric tons. The owners of the larger private plantations live in Lisbon and administer their property through agents in San Thomé. The better-placed cocoa plantations, during the years preceding

the outbreak of war, paid a dividend of 12–15 per cent., the inferior ones only 5–6 per cent.

Real estate in the islands is held on a tenure described by a Portuguese authority on colonial affairs as perhaps unique.¹ The title-deeds of the properties, he says, lend themselves to anything. They usually only define the frontages, making no mention of boundaries, or they may go so far as to indicate the front and back boundaries of the estate, the latter being described by the conventional formula, 'as far as the nearest neighbour'. Thus two neighbours whose lands meet or cross, as frequently happens, find themselves in disagreement.

The work quoted was written in 1885, and republished with alterations in 1893. Since that date a cadastral survey of the island has been made, but there has been no attempt to carry out a revenue survey which, by compelling the registration of titles and plans, would enable the Government to assess the lands for taxation, as is the rule in Portugal and in other Portuguese colonies. This obligation has been evaded or postponed by the expedient of imposing a special surtax on exports in lieu of a land-rate upon rural properties. Meanwhile, many of the European proprietors whose estates are conterminous have demarcated their joint boundaries, presumably to their own satisfaction.

(3) FISHERIES

The shallow seas surrounding the islands have an abundance of fish, many species being edible and of excellent quality. But as the native of San Thomé and Príncipe declines to catch more than he requires for his own consumption, the fishing industry is restricted to the small colony, numbering about 2,000 souls, known as the Angolares (see p. 7). The large demand for salt fish which exists in San Thomé as in every Portuguese colony, might be met locally, and the heavy cost of importing Newfoundland and Iceland

¹ A. F. Nogueira, *A Ilha de S. Thomé e o nosso Problema colonial*, Lisbon, 1893.

salted cod be confined to those whose means justify the luxury.

Turtles are abundant on the coast, and there is the beginning of a trade in tortoise-shell, which might easily be further developed. The sperm whale is frequently to be seen off the islands. Whaling in these waters before the war was the monopoly of a German company operating from the Angolan coast. Whether that company could profitably be supplanted by making San Thomé a whaling station or by working on pre-war lines from Mossamedes, is a point for inquiry.

(C) COMMERCE

(1) DOMESTIC

(a) *Principal Branches of Trade*

All the estates import goods for their own requirements, independently of the town merchants, whose trade is thus, for the most part, confined to the townsfolk and the native islanders. The shopkeeping of the islands is exclusively in Portuguese hands. Municipal markets exist for the sale of dairy and market-garden produce, but almost all the estates are self-supporting in this respect. A few Chinese, who came to the island as coolies and chose to remain there, are still making a living in this way, but there is little room for expansion, though vegetables quite up to the European standard of quality are raised with ease.

(b) *Organizations to promote Trade and Commerce*

The *Centro Colonial de Lisboa* is an association of persons directly or indirectly interested in the island trade and agriculture, which meets monthly for the discussion of business and general policy, undertaking such representations to Government as may be necessary. It publishes a useful *Boletim* of its transactions, with much matter, not to be found readily elsewhere, relating to the cocoa trade of the colony.

(c) *Foreign Interests and Economic Penetration*

Foreign interests may almost be said not to exist, the only exceptions being found in Monte Rosa, an estate of 500 hectares under cocoa, owned by M. Celestin Palanque (French), and Amparo, a Belgian cocoa estate of 5,000 hectares, controlled by the Banque de Reports de Fonds Publics et de Dépôts, which has its head office in Antwerp. In 1907 a German syndicate with a great backing of capital tried to secure a number of plantations in San Thomé, and in 1912 an English syndicate tried to do the same in both islands. Both enterprises collapsed in face of the excessive purchase prices demanded by the Portuguese owners.

Germany had no doubt succeeded in making some headway before the war, partly through friendly Portuguese agencies and partly through German firms established in Lisbon. Of the latter the chief were O. Herold & Co., and Martin Weinstein & Co. Herold & Co. employed able Portuguese experts in tropical agriculture to visit the islands and push the sale of their products, which consisted of chemical manures and preparations for combating parasitic diseases of plants. Their pamphlet literature on these subjects was excellent and exhaustive. On the outbreak of the war this house was placed under a Portuguese administrator nominated by the Government, and the services of its experts were released for national work. It was subsequently liquidated by direction of the Portuguese Government.

Weinstein & Co. proceeded differently. They established friendly relations with the leading planters on principle, even though they had nothing to make out of them directly. In the case of the smaller estate-owners, or those temporarily embarrassed, they made a practice of buying crops in advance, and, if necessary, of lending money on liberal terms upon anticipated harvests, renewing these loans if desired, and thus keeping a large section of the community in permanent debt to them. Their gains were enormous, it being

currently reported that in the years 1911 to 1913 they were making about £40,000 per annum. When Germany declared war upon Portugal in 1916, the house was placed under administration; and the Weinsteins, uncle and nephew, left the country for Spain. They are understood to have acquired a large holding in at least one of the agricultural companies of the islands, but this interest is presumably under the control of the Government administrator.

German houses, in whose hands was much of the pre-war trade, did not confine themselves to pushing the sale of German-made goods; on the contrary, the German traveller, invariably fluent in Portuguese, and familiar with the tastes and weaknesses of his customers, would exhibit quite impartially what he styled 'the genuine British article' side by side with 'the cheap German imitation'. Those who preferred the former might have it—at the price it bore on the label; those to whom the latter commended itself might take it similarly. As for himself and his house, they were indifferent so long as their clients were pleased; their profit was the same either way. This form of business appealed strongly to the local Portuguese, both for its humour from their point of view, and for its marked contrast with British and American ways of trading. The British plan of sending circulars and catalogues only played into German hands, as those who received them instead of the visit of a friendly commercial traveller, simply brought them to the German representative with a request for explanation and as a means of describing the article they themselves wanted. Of course any order that was given on the basis of the English catalogue went to the German representative. As for American goods, a certain amount of machinery for the plantations found its way to the islands from time to time.

(2) FOREIGN

(a) Exports

Quantities and Values.—Cocoa is the most important article of export from the islands, and Principe exports little else. A record was reached in 1913, when over 43,495 metric tons were exported, valued at 7,516,248 *escudos*, which, taking 5 *escudos* to the £1 sterling,¹ represents £1,503,000. The export of coffee, which is almost entirely from San Thomé, tends steadily to decline. In 1910 it amounted to nearly 980 metric tons, valued at nearly 242,000 *escudos*, but in 1913 the export fell to 673 tons, value 201,718 *escudos*. Oils and oil-seeds have risen somewhat in value, but on the whole remain fairly constant in amount. The other exports are immaterial.

The following table² shows the values of exports in the years 1909, 1912, and 1915 :

<i>Commodity.</i>	1909. <i>Escudos.</i>	1912. <i>Escudos.</i>	1915. <i>Escudos.</i>
Cocoa	7,954,168	7,477,403	6,023,056
Coffee	176,385	181,509	163,537
Oils and oil-seeds	24,133	39,340	42,167
Hides	1,017	1,480	4,668
Cinchona	13,558	2,414	2,827
Minor products	20,215	32,340	43,136
	<u>8,189,476</u>	<u>7,734,486</u>	<u>6,279,391</u>

Countries of Destination.—A preferential export tariff is in operation (see below) which secures that all the coffee and cocoa from the islands goes, in the first place, to Lisbon. Germany, however, has been the largest customer for cocoa, though her demand was falling off owing to the development of cocoa production in her own African colonies. In 1913 Germany

¹ At par of exchange the *escudo* = 4s. 5½d., or, roughly, 4s. 6d. Actually, however, the average for many years has been below that figure, and in 1917 sank as low as 2s. 6d.

² Figures taken from the *Boletim Oficial do San Thomé e Principe*, the *Anuario Colonial*, and the *Boletim do Centro Colonial de Lisboa*.

took 11,400 tons from the islands out of her average total import from all quarters of 55,000 tons a year. The German colony of Cameroon and the British Gold Coast have become serious competitors with the Portuguese colony in this field.

(b) Imports

Values and Countries of Origin.—Generally speaking, everything required in the islands has to be imported, but no recent information is available as to the nature of the specific articles, their values, or countries of origin. A list made up for 1895, however, indicates as the principal imports: food-stuffs, textiles, liquors, vegetables, metals and machines, tobacco, shoes, petroleum, &c., and these no doubt continue to be the staple imports. But imports from foreign countries in foreign vessels are insignificant, again owing to the preferential tariff, which gives liberal exemptions from import duty to goods of Portuguese origin.

The total values of the imports to both islands, with the proportion obtained from Portugal, are given on p. 18, the whole of this trade passing through the two ports of San Thomé and Santo Antonio do Principe.

In 1914 British and German goods were imported into the islands to the value of 1,554,180 *escudos*, but practically all were brought in Portuguese vessels. There was, of course, a considerable decline in the second half of that year.

(c) Customs and Tariffs

The tariff in force is that of 1892, enhanced by surtaxes and supplement. On August 12, 1914, Portugal signed a treaty of navigation and commerce which gave Great Britain most-favoured-nation treatment, thus at last placing her on the same footing as Germany, who had had a similar treaty some years earlier. The ratification of the treaty with Great Britain, however, was delayed until May 20, 1916, owing to an eleventh-hour dispute as to the definition of 'port wine'.

The rates applicable to San Thomé and Príncipe now stand as follows, plus an *ad valorem* war tax of 3 per cent. in all cases:

<i>Goods.</i>	<i>Total Duty in \$ (escudo) per kg.</i>
(1) COCOA :	
(a) To Portugal and the islands (i.e. Madeira and Azores), and to Portugal's overseas colonies	·018
(b) To foreign ports in Portuguese vessels	·037
(c) To foreign ports in foreign vessels	·060
(2) COFFEE :	
(a) To Portugal and the islands (i.e. Madeira and Azores), and to Portugal's overseas colonies	·024
(b) To foreign ports in Portuguese vessels	·045
(c) To foreign ports in foreign vessels	·067
(3) ALL OTHER PRODUCTS :	<i>Ad valorem.</i>
(a) To Portugal and the islands (i.e. Madeira and Azores), and to Portugal's overseas colonies	1·5 per cent.
(b) To foreign ports in Portuguese vessels	7·5 „
(c) To foreign ports in foreign vessels	22·5 „

The discrimination against foreign vessels going to foreign ports is an effective barrier against export by that channel; all the cocoa and coffee produced in the islands consequently goes to Lisbon in Portuguese ships.

The only important foreign imports which enjoy exemption from taxation are coal, live animals, cask staves, sewing-machines, agricultural and industrial machinery, locomotives, and railway rolling stock.

(D) FINANCE

(1) *Public Finance*

The budget for the year 1913-14 was as follows:

REVENUE.		<i>Escudos.</i>
Direct taxation		376,140
Indirect taxation		664,727
State property and other receipts		65,067
Earmarked revenues		57,125
Total		1,163,059

EXPENDITURE.		<i>Escudos.</i>
General administration		149,389
Treasury „		82,625
Justice „		21,614
Ecclesiastical „		4,102
Military „		114,297
Naval „		16,254
General charges		5,646
Miscellaneous payments		20,863
Non-recurring charges		249,929
Extraordinary expenditure		147,067
Total		811,786

The estimated revenue for 1916-17 was 1,234,414 *escudos*, which, after meeting ordinary and extraordinary expenditure, left a balance of 101,187 *escudos*. The total revenue and disbursements for this year show an increase over those for 1915-16 of 221,134 *escudos*.

(2) *Banking*

The only bank operating in the islands is the *Banco Nacional Ultramarino*, which was founded at Lisbon in 1865 and for four years received a Government subsidy. Under its charter it possesses the right to issue notes in the colonies but not at Lisbon. As its notes, unlike those of the Bank of Portugal, are convertible on demand, each branch maintains a silver reserve equal

to one-third of its local circulation. The notes of one branch presented at another for encashment or credit, however, are subjected to a charge for exchange, the bank holding that on any other terms a larger reserve would have to be maintained, which would involve the expense of importing additional silver from Lisbon, to an amount, moreover, which could not with any certainty be estimated. The bank is criticized for its excessive rate of accommodation in loans. It is pointed out that the British South African banks which work in Portuguese East Africa can furnish credit at 6 per cent. to 8 per cent., while at San Thomé the rate is 12 per cent. In defence of the bank it is urged that stability is the main thing; that the planters most given to borrowing do not always make the best use of the money, employing the loan to acquire new lands rather than to develop the old; that the bank's terms were regulated by the Lisbon bank rate, normally many times higher than that of London, by which the terms of British banks in South Africa were regulated; and that these foreign banks, if introduced to the islands, would, in view of the uncertain conditions of land tenure and the weakness of titles, be compelled to cover risks by an even higher rate than that of the Banco Nacional. Behind all this, too, lie national considerations, as in the case of the Companhia Nacional de Navegação (see p. 19). It is affirmed to be in the interests of national policy to confine the exploitation of the islands to national agencies; otherwise, as in the case of some other Portuguese colonies, their development would benefit the foreigner, while financially they would become a burden to the mother country, and from this would follow a weakening of political ties. These considerations have given rise to a general policy of monopoly under which such communities as those of San Thomé and Príncipe are inclined to be restive.

There is a local savings bank, the *Caixa Economica de San Thomé*, and there are in Lisbon several similar institutions, with branches or representatives in the islands.

(E) GENERAL REMARKS

The islands suffer a serious handicap in the fact that so much of their surplus revenue, which might be usefully applied to local purposes, is appropriated to make good the deficits in other Portuguese colonies, such as Angola.

If industry is to be further developed, the traditional contempt for work displayed by the natives of the islands must be overcome by education or other means of persuasion. The existing system of relying almost entirely on imported contract labour has many disadvantages, one of which is that it discourages many minor industries that elsewhere are classed as domestic. The time and energies of an imported hand are too valuable to be thus employed, when tried and tested sources of profit on a large scale claim all attention.

APPENDIX

TABLE I.—INWARD AND OUTWARD TONNAGE DURING 1909, 1912, AND 1915

	1909.			1912.			1915.			
	Entered. No.	Cleared. No.	Tonnage.	Entered. No.	Cleared. No.	Tonnage.	Entered. No.	Cleared. No.	Tonnage.	
<i>San Thomé</i>										
Steamers:										
Portuguese	85	276,636	85	276,636	100	356,103	98	314,779	80	307,209
British	14	32,419	14	32,419	12	43,738	12	7,792	6	10,500
German	11	23,408	10	21,408	12	50,895	12			
Spanish	7	808	7	808	10	1,635	10	14,114	36	14,114
Norwegian	..	..	..	..	..	..	..	526	5	526
Total	117	333,271	116	331,271	134	452,371	132	337,211	127	332,349
Sailing Vessels:										
Portuguese	4	1,911	4	1,911	6	5,629	5	3,693	4	2,029
Norwegian	..	..	..	..	..	..	..	3,697	2	3,697
Grand total	121	335,182	120	333,182	140	458,000	137	344,601	133	338,075
<i>Principe</i>										
Steamers:										
Portuguese	50	101,315	50	101,315	49	153,444	49	151,539	44	151,539
British	..	..	..	..	2	229	2	..	..	..
German	..	..	..	..	2	3,353	2	..	..	..
Spanish	26	2,961	26	2,961	27	3,883	27	795	3	795
Total	76	104,276	76	104,276	80	160,909	80	152,334	47	152,334
Sailing Vessels:										
Portuguese	..	..	..	..	3	1,798	3	..	..	..
Grand total	76	104,276	76	104,276	83	162,707	83	152,334	47	152,334

TABLE II.—CONTRACT LABOUR INTRODUCED INTO AND REPATRIATED FROM
SAN THOMÉ AND PRINCEIPE DURING THE PERIOD 1913-17

<i>Movement.</i>	1913.	1914.	1915.	1916.	1917.	<i>Total of Period.</i>
INWARD						
<i>Into San Thomé</i>						
From Angola . . .	1,008	1,580	4,152	3,573	1,918	12,231
" Mozambique . . .	5,389	7,893	8,277	5,439	3,499	30,497
" Cape Verde Islands . .	150	44	58	86	47	385
<i>Into Principe</i>						
From Angola . . .	18	36	724	660	409	1,847
" Mozambique . . .	..	..	98	..	113	211
" Cape Verde Islands . .	1,015	965	907	677	190	3,754
Totals . . .	7,580	10,518	14,216	10,435	6,176	48,925
OUTWARD						
<i>From San Thomé</i>						
To Angola . . .	2,071	4,198	2,644	2,949	420	12,282
" Mozambique . . .	1,310	1,562	2,141	2,433	2,552	9,998
" Cape Verde Islands . .	182	162	54	44	30	472
<i>From Principe</i>						
To Angola . . .	253	407	242	182	43	1,127
" Mozambique . . .	..	..	..	..	..	..
" Cape Verde Islands . .	623	584	905	802	394	3,308
" San Thomé. . .	..	..	12	13	8	33
Totals . . .	4,439	6,913	5,998	6,423	3,447	27,220

AUTHORITIES

HISTORICAL

- ALMADA, JOSÉ. *Essai sur la main d'œuvre aux îles de San Thomé et Principe*. Lisbon, 1913.
- ALMADA NEGREIROS, A. L. DE. *L'Ile de S. Thomé*. Paris, 1901.
- *L'Épopée portugaise*. Paris, 1903.
- *Les Colonies portugaises*. Paris. [1908.]
- ANON. (Hum Piloto Portuguez). *Navegação de Lisboa á Ilha de San Thomé*. Repub. in *Collecção de Noticias para a Historia e Geographia das Nações ultramarinas*. Lisbon, 1812.
- BARING, E., Earl of Cromer. *Portuguese Slavery*. (The Spectator, August 30.) London, 1913.
- BARROS E SOUSA DE MESQUITA DE MACEDO LEITÃO E CARVALHOSA, M. F. DE, Viscount de Santarem. *Recherches sur la Priorité de la Découverte des Pays situés sur la Côte occidentale d'Afrique*. Paris, 1842.
- BRUTO DA COSTA, Dr. B. F., and others. *Sleeping Sickness in the Island of Principe*. Sanitation, Statistics, etc. London, 1913.
- *Sleeping Sickness: a Record of Four Years' War against it in Principe*. London, 1916.
- CADBURY, W. A. *Labour in Portuguese West Africa*. London, 1910.
- CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portuguezas*. Lisbon, 1903.
- *Portugal Colonial*. Lisbon. [1919.]
- CHEVALIER, AUGUSTE. *L'Ile de San Thomé*. Paris, 1907. Translated in *Revista portuguesa colonial e maritima*. Lisbon, 1908.
- *Le Cacaoyer dans l'Ouest africain*. Paris, 1908.
- CUNHA MATTOS, RAYMUNDO JOSÉ DA, Marshal. *Chorographia historica das Ilhas de San Thomé e Principe, Anno Bom e Fernando Póo*. Lisbon, 1815. Republished in *Boletim do Centro colonial*. Lisbon, February, 1914, to May, 1915.
- FOREIGN OFFICE WHITE BOOKS :
- Africa No. 2 (1912) : Cd. 6322.
- Africa No. 2 (1913) : Cd. 6607. See Report on pp. 21-4, and on pp. 60-4.
- Africa No. 1 (1915) : Cd. 7960.
- Africa No. 1 (1917) : Cd. 8479. See Report on pp. 66-70.

- JOHNSTON, Sir H. H. *The Portuguese West African Colonies.* (Journal of Society of Arts, February.) London, 1884.
— *The Negro in the New World.* London, 1910.
— *A History of the Colonization of Africa by Alien Races.* Cambridge, 1913.
MANTERO, FRANCISCO. *Native Labour in San Thomé and Príncipe.* Lisbon, 1910.
NOGUEIRA, A. F. *A Ilha de S. Thomé e o nosso Problema colonial.* Lisbon, 1893.
Sociedade de Emigração para San Thomé e Príncipe. Relatorio. Lisbon, 1916.
STRUNK, Dr. *A Ilha de San Thomé. Relatorio.* Translated in *Boletim da Sociedade de Geographia de Lisboa.* Lisbon, 1906.

ECONOMIC

- Anuario Colonial de 1916.* Lisbon, 1916.
Anuario Commercial de Portugal. Vol. ii. Lisbon, 1918.
Atlas Colonial Português. 1914.
Boletim do Centro Colonial de Lisboa.
Boletim Oficial do San Thomé e Príncipe.
ALMADA NEGREIROS, A. L. DE. *Les Colonies portugaises.* Paris. [1908.]
CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portuguezas.* Lisbon, 1903.
MARVAUD, ANGEL. *Le Portugal et ses colonies.* Paris, 1912.
MEYER, PROF. DR. HANS. *Das portugiesische Kolonialreich der Gegenwart.* Berlin, 1918.

MAPS

The islands San Thomé and Príncipe are shown on the War Office Map of Africa (G.S.G.S. 1539) on the scale 1 : 1,000,000, sheet 82 (old numbering) ; also on the sheet 'French Congo' of the Map of Africa (G.S.G.S. 2871), scale 1 : 2,000,000 (1919).

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TABLE OF CONTENTS

	PAGE
I. GEOGRAPHY PHYSICAL AND POLITICAL	
(1) Position and Frontiers	1
(2) Surface, Coast, and River System	
Surface	3
Coast	5
River System	6
(3) Climate	7
Temperature	7
Rainfall	8
(4) Sanitary Conditions	8
(5) Race and Language	9
(6) Population	
Distribution and Density	10
Towns	11
Movement	11
II. POLITICAL HISTORY	
Chronological Summary	12
(1) The Portuguese Occupation, 1485-1559	13
(2) Paulo Dias in Angola, 1559-88	15
(3) Decay of Portuguese Power in Congo	15
(4) The Struggle for Angola, 1597-1648.	16
(5) Extension and Consolidation of Portuguese Authority	18
(6) Angola in the Nineteenth Century	19
(7) Trans-continental Aspirations	21
(8) The Demarcation of Frontiers.	22
(9) Cabinda	24
III. SOCIAL AND POLITICAL CONDITIONS	
(1) Religious	26
(2) Political	26
(3) Educational	27
IV. ECONOMIC CONDITIONS	
(A) MEANS OF COMMUNICATION	
(1) Internal	
(a) Roads, Paths, and Tracks.	29
(b) Rivers and Canals	31

TABLE OF CONTENTS

[No. 120]

	PAGE
(c) Railways	32
(d) Posts and Telegraphs	35
(2) External	
(a) Ports	36
(b) Shipping Lines	37
(c) Telegraphic and Wireless Communications	38
(B) INDUSTRY	
(1) Labour	38
(a) Supply	40
(b) Emigration and Immigration	42
(c) Labour Conditions	45
(2) Agriculture	
(a) Products of Commercial Value	47
Vegetable Products	
Cassava, or Manioc	47
Cocoa	47
Coffee	48
Fibres	49
Ground-nuts	50
Gums	51
Oil-palms	52
Rubber	53
Sugar-cane	55
Live-stock and Animal Products	57
Ivory	58
Wax	60
(b) Forestry	60
(c) Land Tenure	62
(3) Fisheries	66
(4) Minerals	68
Copper Ores	68
Gold	70
Gypsum	70
Iron	70
Petroleum	70
Salt	71
Sulphur	71
(5) Manufactures	72
(6) Power	73
(C) COMMERCE	
(1) Domestic	74
(a) Principal Branches of Trade	74
(b) Towns, Markets, &c.	74

	PAGE
(c) Organizations to promote Trade and Commerce	76
(d) British Interests	77
(e) Methods of Economic Penetration	77
(2) Foreign	
(a) Exports	78
(b) Imports	79
(c) Customs and Tariffs	79
(i) The Loanda - Benguella - Mossamedes Tariff	79
(ii) The Ambriz Tariff	80
(iii) The Congo Tariff	81
(d) Commercial Treaties	81
(D) FINANCE	
(1) Public Finance	
Budget Estimates	81
Taxation	83
(2) Currency	84
(3) Banking	84
(4) Influence of Foreign Capital	85
(5) Possible Fields for Investment.	85

APPENDIX

Table I. Ocean-going Shipping: Entries at Angola	
Ports, 1909, 1911, and 1913	86
,, II. Exports from Angola, 1910-13	88
,, III. Imports into Angola, 1910-14	89
,, IV. Public Finance of Angola	90

AUTHORITIES	92
MAPS	94

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

ANGOLA, or Portuguese West Africa, lies between $4^{\circ} 20'$ and $18^{\circ} 2'$ south latitude and $11^{\circ} 40'$ and 24° east longitude. The total area is estimated at 484,000 square miles.

The country falls into two detached parts. To the north of the Congo lies the Cabinda enclave, a district of about 3,000 square miles, surrounded on its landward sides by French Equatorial Africa and the Belgian Congo. The main part of the province lies to the south of the Congo, and is bordered on the north by the Belgian Congo, on the east by the Belgian Congo and Northern Rhodesia, and on the south by what was German South-west Africa.

The boundary between Cabinda and French Equatorial Africa starts from Shamba Point (Futa Massabe), at the joint mouth of the Loema (Loémé), or Louisa Loango, and the Lubinda, and keeping approximately an equal distance from the two rivers, follows an irregular line first north-east and then south-east, to the point at which French, Portuguese, and Belgian territory meet. From there the boundary between Cabinda and the Belgian Congo follows the course of the Shiloango as far as its confluence with the Lukula, and then the *thalweg* of the latter river to the point ($5^{\circ} 10' \text{ S.}, 12^{\circ} 32' \text{ E.}$) at which it is joined by the Zenze. From there a straight line is drawn southward to the parallel of latitude ($5^{\circ} 44' \text{ S.}$) which passes through the sources of the River Lulofe on the western slope of the plateau of Nime Chima. The boundary then runs along this parallel westward to the geodetic pillar at Yema ($5^{\circ} 44' \text{ S.}, 12^{\circ} 18' \text{ E.}$), whence it follows first the

thalweg of the Lulofe and then that of the Venzo as far as Mallongo. From Mallongo a purely conventional line is drawn to the coast, which is reached about $1\frac{3}{4}$ miles north of the lagoon of Lunga.

In December 1886 a Declaration between Portugal and Germany defined the Kunene as the boundary between Angola and German South-west Africa from its mouth to the cataracts at Ruacana; from there the line is carried due eastward until it reaches the Kubango (Okavango), which it follows down-stream to the village of Andara in 18° south latitude. From Andara to the Kwando the boundary is formed by a straight line drawn in the direction of the falls of Katima on the Zambezi.

The frontier between Angola and Rhodesia, as defined by the King of Italy's award in 1905, begins where the line just mentioned crosses the Kwando and follows the course of that river up-stream until it meets the line of 22° east longitude. It then follows that meridian northward until it intersects 13° south latitude. This parallel is followed as far eastwards as the meridian of 24° , which forms the frontier until Belgian territory is reached.

Various agreements define the Belgo-Portuguese frontier, the most important of which are the Convention of May 25, 1891, the Declaration of March 24, 1894, and the letters exchanged between the two Powers in April and June 1910. From 24° east longitude the frontier runs westward along the Congo-Zambezi divide to the north of Lake Dilolo. At the point where this watershed approaches most closely to the source of a tributary of the Luakanu, near Sha Kalumbo, the frontier leaves the divide and follows these rivers to the confluence of the latter with the Kasai. The *thalweg* of the Kasai then becomes the frontier as far north as $7^{\circ} 17'$ south latitude. From this point its general direction is westward to the Shikapa, north along that river to beyond 7° south latitude, westward to the Loange, south along that and other rivers as far as 8° south latitude, and west-

ward to the Kwango. The details, however, can only be shown on a large scale map.

The frontier then follows the *thalweg* of the Kwango as far north as $5^{\circ} 52'$ south latitude. From this point to Noki (Nogui) on the lower Congo it was finally adjusted by an agreement of July 5, 1913, which made it follow approximately the parallel of $5^{\circ} 52'$ south.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

Angola belongs mainly to the north-western portion of the South African plateau, and the chief features of its structure are simple. The coast is fringed by a plain, which in the north has a breadth of 150 miles or more, but narrows till it practically disappears near 17° south latitude. Behind it the land rises in steep escarpments to the plateau of southern Africa. This plateau country extends inland and has an elevation over vast areas varying from 4,000 to 6,000 ft. (1,200–1,800 metres). It falls towards the east, and beyond the Kwanza gradually passes into a fourth physical region which is lower and more level than the plateau.

The geographical features of Angola are still but imperfectly known, and a systematic description of the country is impossible. Its general character can, however, be gathered by an examination of certain sections.

Cabinda.—The greater part of the enclave is a low plateau which in general terminates along the west in a series of cliffs of no great height. The surface soils are either sands or clays, and there are considerable areas of marshland. In the north-east the land is higher and is much cut up by rivers.

Northern Angola.—From the lowlands which border the Congo and the coast the land rises to the first plateau (2,000 ft., 600 metres). The ascent to the second plateau is very steep. This second plateau is traversed by many streams, and its surface, which lies at a height of between 3,000 and 3,500 ft. (900–1,050

metres), is generally undulating in character. Towards the Kwango the land decreases in height, and in places becomes swampy and unhealthy.

Farther to the south, along the parallel of Loanda, the coastal zone (about 90 miles broad) is generally flat. Over wide stretches of country some districts are entirely bare, while others have a covering of bushes and grass. Farther inland the land rises gradually to the central plateau, which has an elevation of between 4,000 and 5,000 ft. (1,200–1,500 metres), a great part of it being broken and often mountainous country. Farther to the east lies the wild Lunda region, of which very little is known.

Central Angola.—Here the coastal zone, which is much narrower than that farther north, consists in the main of barren wastes, though in some places there are fertile districts. From the coast the land rises towards the interior in a series of terraces, their heights being 500 ft. (150 metres), 800 ft. (250 metres), and 1,000 ft. (300 metres) respectively. From the top of the Lengue Gorge the country extends inland as a waterless desert, and its surface is dotted with granitic domes and tors. Another ascent through the Portella Corotava leads to a higher plateau of 3,000 to 4,000 ft. (900–1,200 metres), which again rises to the highest plateau in this part of Africa (7,000 to 8,000 ft., 2,100–2,700 metres). Thereafter there is a change in the character of the topography. From Bihé (Ecovongo) to Moshiko (Mosiko) the country is lower, with a gently rolling appearance, while between Moshiko and Nana Kandundu (Nyakatoro) it is almost level, and this characteristic continues until the Congo–Zambezi divide is reached. This eastern region is drained by tributaries of the Zambezi, which, in contrast to those farther west, flow in shallower troughs and have more gentle gradients.

South Angola.—From Mossamedes the land rises gradually for about 100 miles to a height of over 2,000 ft. (600 metres). From here an elevation of between 6,000 and 7,000 ft. (1,800–2,100 metres) is speedily attained. Farther south, however, there is practically

no coastal region. Towards the north the escarpment appears to break up into several distinct ranges, but in the south there is a high massif which falls steeply and sometimes precipitously to the east, where the Huilla plateau occupies the greater part of the country. The surface is comparatively level and does not exceed 4,000 ft. in height. Farther to the east the country has the appearance of a sandy plain; the rivers are separated by low heights and meander along in flat marshy valleys.

Coast

The coast of Angola has a total length of about 1,000 miles, but there are comparatively few openings of any description. The approaches to it from the sea are not always well adapted to navigation. In some places the depth is great close inshore, and it is impossible to find good anchorage except in a few narrow bays, but farther north the 4-fathom line is carried well out to sea. Rollers, though troublesome, are seldom dangerous if proper precautions are taken.

The approaches from the land are also difficult, and owing to the structure of the country the rivers seldom provide good means of access to or from the interior.

In Cabinda the Massabe (Masabi) and the Shiloango have ports near their mouths, but vessels have to anchor off Massabe and Landana respectively. The chief ports upon the southern bank of the Congo are Santo Antonio and Noki. The former is not a good port, and the latter is said to have an awkward anchorage.

To the south of the Congo there are ports at Ambrizette, Ambriz, São Paulo de Loanda, Lobito Bay, Benguella, and Mossamedes. At Ambrizette there is an anchorage off the mouth of the Kouza, and at Ambriz one off the mouth of the Loje (or Loge). Neither place has facilities for a good harbour. At the port of São Paulo de Loanda vessels of large size can lie in smooth water at all seasons, and the anchorage is good. Lobito Bay is deep and well sheltered, while Mossamedes has a fairly good anchorage. For further particulars, see *infra*, pp. 36-7.

River System

Angola lies within the drainage areas of the Congo, the Atlantic, the Zambezi, and the inland basin of Lake Ngami.

In the north-west, the rivers which flow to the Congo rise on or near the margin of the plateau, and are as a rule short and rapid. Farther to the east the Kwango and the Kasai have pushed their head-waters much more to the south and are important rivers, they and their tributaries draining no inconsiderable part of the plateau.

Many of the rivers which flow into the Atlantic rise upon the margin of the plateau and flow directly to the sea. Others, of which the Kwanza and the Kunene are the most important, rise far in the interior, and collect numerous tributaries before they cut their way through the escarpment and descend by many rapids to the coast.

The Kubango (Okavango) and the Kwito are the principal rivers which flow towards the depression of Lake Ngami, but authorities differ as to their later course (see *infra*, p. 32, and also *South-West Africa*, No. 112 of this series, p. 57).

Of the rivers which belong to the Zambezi system the most important are the Zambezi and the Kwando, the latter of which is broad, deep, and free from obstructions and rapids.

Owing to the structure and climate of Angola its rivers are of comparatively little economic value. Those which rise upon the margin of the plateau are little more than mountain torrents, while those which flow from the interior are so interrupted by rapids that they are seldom navigable for any considerable distance. The depth of water is also variable. For these reasons therefore the rivers play but a small part in the development of the country. On the Kwango very small steamers can ply on the stretches between the rapids; the Kwanza is navigable for about 100 miles from its mouth; small boats and canoes use

parts of the Kunene during the dry season and steamers could probably find sufficient draught at times of high water. But with these exceptions the rivers of the north and west are of comparatively little use for navigation. In the south-east the courses of the rivers are less interrupted by falls. The Kubango and the Kwito are both reported to be navigable; on the Kubango, indeed, it is said that there are over 400 miles of waterway during the dry season. These rivers, however, will only prove of value if they are connected by rail with the coast. The Kwando is little known, but it also is said to be navigable.

(3) CLIMATE

The data available for a discussion of the climatic conditions of Angola are very scanty, and all the figures given in the following account must be regarded as approximate.

The main features which control the climate of Angola are its position between the equator and the tropic, its situation on the western side of the continent, the high altitude of the greater part of the country, and the relatively cool current which flows along its coast. The climatic regime which results from these geographical controls is somewhat as follows. As the sun moves southward from the equator the temperature rises and reaches a low maximum about October. Then follows the lesser rainy season. As the sun continues to move south the rainfall decreases and is followed in the beginning of the year, when the sun is moving north, by a second and higher maximum. During February, March, and April comes the second rainy period or season of great rains. After the sun is well across the equator the temperature falls and the long dry season begins. Thus there is a double maximum and a double minimum both in temperature and in rainfall in the course of the year.

Temperature.—As a general rule the temperature

decreases from north to south and from the coast towards the plateau. At Shinshasha (Chinchoxo) in Cabinda, a two-years' observation shows a maximum of 79° F. (26° C.) in March and a minimum of 72° F. (22° C.) in August. Farther south, Loanda has a maximum of 79° F. (26° C.) in February and a minimum of 68° F. (20° C.) in August. On the plateau, inland from Loanda, Malange (at an elevation of 3,500 ft.) has a range from 68° F. (20° C.) in March to 64° F. (18° C.) in June. At Mossamedes on the coast the mean temperature is reported to be about 72° F. (22° C.) from December to February, while from June to August it is 66° F. (19° C.). On the plateau the range is said to be from 59° F. (15° C.) to 70° F. (21° C.). In the more elevated regions the diurnal range is considerable, and at night the thermometer in the south frequently falls to freezing point.

Rainfall.—The greater part of the rainfall occurs when easterly winds are blowing; hence the precipitation on the coast is low, and south of Loanda probably does not exceed 10 inches (250 mm.). It increases towards the north and at Shinshasha is said to amount to 40 inches (1,000 mm.). On the plateau it is greater, but varies very much with local conditions. At San Salvador in the north the mean is about 40 inches (1,000 mm.) and at Kibokolo some 50 inches (1,270 mm.). Farther to the south, along the line of the Benguela Railway, the observations taken so far show annual amounts varying from 25 to 55 inches (630–1,400 mm.) and even more. The districts of Mossamedes and Huilla are probably not so arid as was at one time believed, but it is doubtful whether the rainfall on the high plateau is sufficient for the needs of agriculture.

(4) SANITARY CONDITIONS

The lowlands of Angola are on the whole less healthy than the uplands, and various tropical diseases are prevalent. About twelve or fifteen years ago sleeping-sickness seems to have been serious in the valley of the Kwanza; and more recently it has appeared in that

of the Katumbella, but no evidence exists that sleeping-sickness has ever been endemic on the plateau at heights of over 3,500 ft. and it is unlikely that it will ever become so.

Malaria is prevalent in the lowlands and along the coast; during the rainy season, also, it is not uncommon on some parts of the uplands. Blackwater fever exists. Leprosy in a mild form is rather common among the natives, and small-pox has often proved a scourge. A disease known as *katumbu*, somewhat similar to whooping-cough, is common among children. Goitre is confined to women living on the plateau. Elephantiasis is prevalent in the lowlands.

On the whole the plateau may be considered healthy for Europeans, and many diseases common in Europe are practically unknown in Angola.

(5) RACE AND LANGUAGE

The native population of Angola belongs to two distinct races, the Bantu and the Bushman. The former inhabit the greater part of the country, while the latter are confined almost entirely to the southern districts. The European population, found mainly in the towns and coastal districts, is with few exceptions either Portuguese or of Portuguese descent. In the south there are some small Boer colonies at Humpata and elsewhere.

Bantu Peoples.—About forty different Bantu tribes have been recognized, but it is extremely difficult to give an adequate account of their distribution. No proper ethnological survey has been made, each writer adopts his own classification, and the same tribe has often more than one name.

All the tribes speak dialects of the Bantu language. In the district of Congo in the north the Congo dialect predominates, and is by far the most useful language of that part of the country. The languages spoken over the greater part of the remainder of Angola are closely allied to it and belong to the Mbundu group. They are used far into the interior.

Bushmen.—There is little reason to doubt that the

bushmen form the original element in the population of Angola. Several distinct types have been recognized, of which the most important are the Bacurocas and Mucancalas. Their language, of which there are several dialects, presents considerable difficulties to philologists. Its most distinguishing features are the peculiar 'click' sounds which are not found elsewhere except in the language of the Hottentots and probably that of one little-known East African tribe.

Portuguese.—The Portuguese inhabitants are either of European birth or of European descent. They are found in the main in the towns, or on the coastal districts, where they have established plantations. In many cases they have intermarried with native women, and between them and the natives there seems to be no hard and fast caste distinction. The total number of Europeans is, however, small.

Boers.—In 1876 a number of Boer families migrated from the Transvaal and eventually in 1880 settled 270 strong at Humpata. Their numbers gradually increased, and in 1906 it was estimated that there were more than a thousand of them scattered over the hills of Huilla. Within the last few years, however, there appears to have been a movement back to South Africa, and probably comparatively few are now left (cf. p. 20).

(6) POPULATION

Distribution and Density

There are no adequate statistics of the population. According to the census of 1914 the native population numbered 2,124,000, but as the enumeration was based upon figures supplied by the natives for purposes of taxation it is probable that this is an underestimate. Other estimates seem to agree that the total is more nearly 4,000,000. As the area of the country is believed to be somewhat under 500,000 square miles, this would give an average of slightly over 8 to the square mile.

A rough idea of the varying density of population

in different parts of the country may, however, be obtained from the census figures. In the district of Congo in the north it was 20 to the square mile, in Loanda between 2 and 3, in Lunda 3, and in Benguella 6. The two southern districts of Mossamedes and Huilla had each less than 1 person to the square mile. If the population be estimated at 4,000,000, however, as indicated above, each of these figures would have to be doubled.

Towns

The chief towns of Angola are situated upon the coast. In Cabinda, Landana has 500 inhabitants and Cabinda 1,200. South of the Congo Loanda is the most important town, and at the census of 1911 it had a population of 17,500, of whom two-thirds were natives. In the same year Benguella had 4,000 inhabitants, Ambriz and Mossamedes 3,000 each, and Novo Redondo 1,200. On the plateau the places with a European population are either trading posts, railway stations, or agricultural centres, and are usually little more than villages.

Movement

Trustworthy statistics are almost entirely wanting. If the accounts of travellers like Capello and Ivens are to be trusted, it would appear that the native population on the plateau was larger forty or fifty years ago than now. Between 1888 and 1909 nearly 70,000 natives were sent to the cocoa plantations in San Thomé and Príncipe, but this would hardly be sufficient to account for the depopulation which is said to have taken place.

Apart from emigration to the cocoa plantations few natives leave the country, though some attempts have been made to obtain their labour in Katanga. There is little immigration. At the present time the Government is endeavouring to induce peasants from Portugal to undertake agricultural work on the plateau, but their efforts do not appear to have been very successful.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1482(?). Discovery of the mouth of the Congo by Diogo Cão.
- 1490. Conversion of the Congo chiefs and foundation of San Salvador.
- 1559. Paulo Dias lands in Angola.
- 1574. Founds Loanda.
- c. 1570–80. Invasion of Congo by Jaggas.
- 1597. First European colonists sent to Angola.
- 1602. Dutch attack Loanda.
- 1603. Defeat of Cafuche by Pereira.
- 1606. Rebello de Aragão attempts to reach the Zambezi.
- 1617. First colonization of Benguella by Pereira.
- 1627. War with Ginga Bandi, Queen of Angola, begins.
- 1641. Dutch take Loanda.
- 1643. Dutch take the governor prisoner.
- 1648. Dutch driven out by a Brazilian expedition.
- 1649. Attempts to cross Africa to Abyssinia.
- 1663. Godinho's scheme to reach the Zambezi.
- 1665. Victory over the King of Congo.
- 1676–80. Ayres de Saldanha's project for an expedition from Benguella to Sena.
- 1684–6. Kakonda taken by natives and recovered after a long war.
- 1717. Kakonda again attacked.
- 1758. Occupation of Ambriz.
- 1764. Reorganization under De Sousa Coutinho.
- 1783. Fort built in Cabinda.
- 1784. Fort abandoned to the French.
- 1785. Mossamedes colonized.
- 1802–10. Saldanha da Gama's efforts to open up communications with east coast.
- 1839–45. New settlement at Mossamedes.
- 1858. Colony formed at Sá da Bandeira.
- 1869. Establishment of existing system of administration.
- 1875. Cameron arrives at Benguella from Zanzibar.
- 1877–8. Serpa Pinto's journey.

1880. Boer settlement at Humpata.

1884-5. Journey of Capello and Ivens.

Boundaries laid down by treaties with

- | | |
|----------------------|--------------------|
| (1) The Congo State. | February 14, 1885. |
| Modified. | May 25, 1891. |
| Modified. | March 24, 1894. |
| (2) France. | May 12, 1886. |
| (3) Germany. | December 30, 1886. |
| (4) United Kingdom. | June 11, 1891. |
| And arbitration. | May 30, 1905. |

(1) THE PORTUGUESE OCCUPATION, 1485-1559

THE coast of West Africa, north and south of the mouth of the Congo (or Zaire as it is always called by the Portuguese), was first made known by the voyage of Diogo Cão in 1482. He reached the mouth of a great river which, as De Barros says, in the winter (i. e. in the rainy season) 'comes forth so proudly into the sea that its sweet waters are found twenty leagues from the shore'. At the point south of the estuary he erected the first *padrão*, a stone column surmounted by a cross, which King João II had ordered to be set up on newly-discovered lands. From this it obtained the name, which it still bears, of Cabo Padrão or Cape Padron. He then sailed some distance up the river, and it was no doubt at this time that he arrived at the foot of the falls, which bar all further navigation, about 115 miles from the sea. Here he had an inscription recording the fact carved on the face of a rock high above the water. This still exists, and has been rediscovered in modern times. He took away some natives, leaving some of his own men as hostages for their safety, and promised to return in fifteen months, a promise which he faithfully kept after sailing to Portugal and back. He thus established good relations with the local potentate known as the King of Congo, and prepared the way for the introduction of the Christian faith. He then prosecuted his voyage southwards along the coast as far south as the 22nd parallel of latitude (about 1,100 miles due south from the

mouth of the Congo, without allowing for the indentations of the coast) and erected two more *padrões*, one on Cape Santo Agostinho (Cape Padrão) and the other on Cape Cross in what was formerly German South-west Africa.

Thus the whole coast of the modern province of Angola, of which the southern limit is the mouth of the Kunene river below latitude 17° south, and a further part of the coast as far as Cape Cross, was explored by Diogo Cão. He then returned to the Congo kingdom, where his propaganda met with much success. It ended in the King sending an ambassador to Portugal with several youths for instruction in the faith. The Ambassador Caçuta and the youths were baptized on reaching Portugal, Caçuta taking the name of Dom João, after the King. This led to the dispatch of a regular mission and, after some vicissitudes, to the conversion of a great part of the kingdom in 1490. A cathedral and fort were built at the capital, Ambassa Congo, which was renamed San Salvador, and a native bishop was appointed.

The discovery of the Cape route to India, the opening up of the eastern trade, the struggle for the mastery of the entrances to the Red Sea and Persian Gulf, together with the discovery and colonization of Brazil, occupied all the resources of Portugal after this time till the middle of the sixteenth century, and while the east coast of Africa received some attention owing to its connexion with the Indian trade and the search for the gold-mines whence the gold was brought to Sofala, but little attention was paid to the west coast south of the equator. The Congo kingdom, however, remained nominally Christian, and the missions appear to have spread into the Angola country to the south of it, but the Portuguese seem to have lost their influence in the Congo, and Paulo Dias was joined in 1574 by forty Portuguese who had been expelled thence. San Salvador was probably a place of some importance until the Jagga invasions.

(2) PAULO DIAS IN ANGOLA, 1559-88

Interest in the country appears to have been revived by a disagreement between the Kings of Congo and Angola about the trade in cowries. A cowrie, known as *zimbo*, formed the circulation of Angola and Congo, and stoppage of the trade by the King of Congo, who resented Portuguese interference, led to a protest by the King of Angola. Paulo Dias, grandson of Bartholomeu Dias, was thereupon sent to Angola to investigate the matter in 1559, and was received at the capital, Pungo Ndongo, in the valley of the Kwanza river, which enters the sea south of Loanda. He found traces of Christianity among the people, and remained for some time in Angola. After his return to Portugal, King Sebastião, who had lately succeeded to the throne, sent him out again in 1574 as 'Conquistador' and first Governor of Angola. He disembarked at the island of Loanda, which belonged to Congo and not to Angola; but, as soon as he had made terms with the King of Angola, he settled on the mainland and founded, probably in 1575, the city of São Paulo de Loanda, which has since remained the capital. Here he was joined by the Portuguese who had been in Congo. After a few years some Portuguese were treacherously massacred by the King of Angola, and for a while Paulo Dias had great difficulty in maintaining his position. He succeeded, however, in reducing the country to submission, and must be considered the actual founder of the colony of Angola. He died in 1588.

(3) DECAY OF PORTUGUESE POWER IN CONGO

Meanwhile in the kingdom of Congo Portuguese influence was on the decline, and a terrible invasion from the east seems to have wiped out its last traces. The invading race was described as the Jaggas or Iaccas, and seems to have been of Bantu origin. They took possession of the capital and the whole country, while the King of Congo and the few Portuguese who

remained took refuge in an island in the river Congo. Pigafetta, who relates this history from the verbal statements of Duarte Lopez,¹ says that the Jaggas were driven out by an expedition sent by King Sebastião in the early part of his reign under Francisco de Gouvea; but whether or not this was so, it is clear that the country had been ruined and that trade and religion had died out. After the accession of Philip II of Spain in 1580, Duarte Lopez, who had long lived in Congo, was sent by the King of Congo to ask for King Philip's assistance and for the re-establishment of Christianity. After long wanderings he arrived in Spain, but Philip seems to have been too much occupied with his expedition against England to attend to him, and he ultimately went to Rome as a religious mendicant; there Pigafetta took down his narrative.

We hear very little of the Congo kingdom from this time on. What remained of Portuguese power was concentrated in Angola.

(4) THE STRUGGLE FOR ANGOLA, 1597-1648

Serious attempts to colonize Angola began about the year 1597. Flemings were brought out, but they all died, for European colonization on the coast is impossible, and the healthy uplands were as yet unknown.

Even the coast settlements were not left unmolested. Portugal was now involved in the Spanish wars, and shared with Spain the hostility of the Dutch; the island of San Thomé was plundered in 1600; an attack was made on Loanda in 1602, which failed; but the port of Pinda on the Congo was seized by the Dutch and held for a time. The principal object of these attacks, then and later on, was probably to obtain command of the lucrative trade in slaves, hitherto monopolized by the Portuguese. About 1603 the country was threatened by a powerful chief of Cam-

¹ *A Report of the Kingdom of Congo.* By F. Pigafetta. Rome, 1591. (Eng. trans., London, 1881.)

bambe, named Cafuche. He was ultimately defeated by the governor, M. Silveira Pereira, who afterwards, in his second term of office (beginning 1615) as 'Conquistador' of the kingdom of Benguella, extended Portuguese rule to the south, and founded the town of São Filippe de Benguella in 1617. He first led the way to the highlands of Kakonda, a plateau over 5,000 ft. above the sea, which has a healthy climate. Attempts were also made in the early part of the seventeenth century to open up communication by land between the Portuguese possessions on the east and west coasts of Africa. As early as 1592 D'Abreu de Brite had made a scheme to establish a chain of posts across the continent, and in 1606 Rebello de Aragão made an attempt to cross from Angola to Sena on the Zambezi. His attempt, however, and others of a like nature, ended in failure. The difficulties of the undertaking were not understood, and neither the knowledge nor the resources of that period were sufficient to give a hope of success.

All attempts at development were soon suspended by the war waged against the Portuguese by Ginga Bandi, the Queen of Angola, who, after professing to accept Christianity, turned against the Portuguese. The wars, which began about 1627, lasted for many years, and the Dutch took advantage of the weakness of the Portuguese Government to renew their attacks. The rebel Queen and many other chiefs allied themselves with the Dutch, and in 1641 a Dutch fleet appeared before Loanda, the fort was taken, and the Portuguese were driven out. The governor took refuge on the Kwanza river, to the south, and held on to the forts on that river. Portugal having by this date been set free from the Spanish yoke, a truce was made, which was treacherously broken by the Dutch, a large number of Portuguese being massacred, and the governor taken prisoner, in 1643. When Sotomayor came as governor from Brazil, he attacked and defeated the Angola Queen in 1645, but the Dutch were not expelled until 1648, when the Governor of Brazil,

S. C. de Sá Benevedes, crossed the Atlantic with a fleet and troops from Rio de Janeiro, and recovered Loanda. Elsewhere, too, south of the equator, the Dutch were driven out at this period, though they were able to hold their strongly fortified posts on the Gold Coast, which passed permanently out of Portuguese possession.

(5) EXTENSION AND CONSOLIDATION OF PORTUGUESE AUTHORITY

The trans-continental schemes were revived by S. C. de Sá Benevedes after the recovery of Loanda, but their impracticable nature is shown by the fact that he proposed to conquer Ethiopia or Abyssinia by an expedition from Angola. In 1663 another scheme was propounded by M. Godinho, to communicate with Tete and Sena on the Zambezi by way of a supposed great lake called Zuchaf, which was probably a confusion of Nyasa and Tanganyika. Another similar project of opening up land communication from Benguella to Sena was formed by Ayres de Saldanha between 1676 and 1680. All these schemes naturally had no result.

In 1665 war broke out with the now independent kingdom of Congo. The King of Congo invaded Portuguese territory, but was killed in a battle which followed, and his army retreated. This country long retained its independence, and in 1785 an expedition was sent to re-explore it (Bowdich, *Discoveries*, p. 64).

There is little to be said of Angola during the first half of the eighteenth century, and it is probable that the only energy displayed was in the slave-trade, which was alone sufficient to paralyse all other efforts.

In 1764, however, an enlightened governor, de Sousa Coutinho, introduced a reformed system of government, more in accordance with civilized ideas than that which had hitherto prevailed. The administration of de Sousa Coutinho was evidently strong as well as enlightened, and Portuguese authority, which was everywhere diminishing, was reasserted. This applied

especially to the post on the Kakonda plateau, where the first establishment had been made by M. de Silveira Pereira soon after the occupation of Benguella in 1617. It had since then had a troubled existence. It was taken by a native chief in 1684, and only recovered after long and hard fighting. It was again attacked in 1717. Coutinho succeeded in re-establishing it firmly. He also encouraged and helped the colonies of Encoge and Ambaca on the high country above Loanda. A little before this date, in 1758, some extension to the north of Angola had taken place, the district of Ambriz on the coast-line of the old Congo kingdom being occupied.

Loanda and Benguella were still separated one from the other by land, and were dependent on sea communication. Coutinho drew attention to this fact in one of his dispatches (Bowdich, *Discoveries*, p. 64).

Cabinda was occupied by a naval expedition and a fort erected in 1783, but it surrendered in less than a year to a French expedition sent out to secure freedom of trade on the Loango coast.¹

(6) ANGOLA IN THE NINETEENTH CENTURY

After the beginning of the nineteenth century, renewed attempts were made under Saldanha da Gama to open up communications with East Africa. These were continued for eight or nine years up to 1810, and although they were not successful, knowledge of the interior increased.

The most promising opening for colonization has been furnished by the development of the port of Mossamedes in the district south of Benguella. This town was founded in 1785 by the Baron de Mossamedes, Governor-General of Angola, on a bay known at that time as Angra do Negro, and took its name from him. No attempts were made to develop it till 1839, when a project of colonization was formed. Colonists from Madeira and Brazil began to settle

¹ *Catalogo dos Governadores*, p. 428.

there in 1845. More recently a good deal of colonization has taken place on the high plateau above this part of the coast. Some Boers from the Transvaal settled in 1880 at Humpata near Huilla, on the uplands between the Shila and Munda ranges (Serra da Chella and Serra da Munda), and after some trouble they accepted Portuguese rule. Some, who depended on hunting, have now left this neighbourhood. Colonization from Portugal is slowly being extended not only here but on many other parts of the high plateau, which has a great area.

The opening up of this magnificent and healthy plateau country by railways and roads is one of the most important features in the modern administration of Angola. Three railways have been constructed from the ports of Loanda, Benguella, and Mossamedes respectively, and all of them have already surmounted the mountain barrier and arrived at the healthy uplands (see below, p. 33). It is proposed to extend these lines to the eastern frontiers of the province and to connect them with the lines of Rhodesia and the Congo State. The agricultural colony of Sá da Bandeira (or Lubango) on the Mossamedes line is under the control of Mossamedes, and bands of colonists from Portugal, Germany, Cape Verde, and Portuguese Guinea have settled there at various times since its foundation in 1858. More recent colonies are those reached by the Angola and Benguella railways, established in 1899 and 1902, and since the establishment of the Portuguese Republic efforts have been made to divert to these healthy lands part of the stream of emigration which flows from Portugal, the Azores, and Madeira, to Brazil and the Sandwich Islands. The section of the Benguella Railway connecting Benguella with Lobito Bay (see p. 33) gives a much better port than Benguella as the terminus of a line which, as stated above, may ultimately form part of a trans-continental system.

It is clear that the Angola colony has great resources and vast areas of land fit for colonization, of which the development has only just commenced. The demarcation of the boundaries has made such a develop-

ment possible, and although some of the aspirations entertained by patriotic explorers have had to be curtailed, yet in exchange Portugal has obtained the certainty of holding this excellent and valuable territory in permanence.

(7) TRANS-CONTINENTAL ASPIRATIONS

The attempts to open up communications between East and West Africa in former times have already been noticed. More recent attempts have been made with the distinct object of establishing Portuguese rights of occupation across the continent, so as to form a belt of Portuguese territory, which would be a bar to any extension of foreign Powers from the north or the south into the central block of country which lies around the head-waters of the Congo and the Zambezi. The advance of British South Africa and the journeys of Stanley, Cameron, and Wissmann across Africa stimulated the Portuguese to make similar attempts. Cameron had started from Zanzibar in February 1873, and arrived at Benguela in November 1875. Wissmann travelled in the opposite direction, also traversing territory to which Portuguese claims extended. Stanley's early journeys seem to have led to the departure of Major Serpa Pinto from Benguela in November 1877. The latter travelled *via* Bihé (Eco-vongo) and thence by the sources of the Kwando, the Kubangwe, and the Kushibi to the upper Zambezi at the Katima rapids.¹ Another important journey was that of two naval officers, H. Capello and R. Ivens, who had already in 1877-8 explored the less known portions of the Angola plateau. They started from Mossamedes in April 1884 and after passing the Kwando river and the Barotse valley, reached the upper Zambezi. Instead of following the river to the sea they struck northwards to the feeders of the Congo, the Lualaba and Kilombo, returning by the Luapula river, west of Lake Bangweulu to the Loangwa river, and rejoining the Zambezi

¹ His further proceedings are referred to below, p. 24.

at Zumbo (the furthest point west of Portuguese East Africa).

By encouraging these expeditions Portugal aimed at obtaining such a hold over these regions as would entitle her to European recognition of her claims to a trans-continental empire, stretching from west to east, from Angola to Mozambique. In 1886 she did secure such recognition from France and Germany, for both the Franco-Portuguese Treaty of May 12, 1886, and the German-Portuguese Treaty of December 30, 1886, contained an article to that effect, the article in the French Treaty, Article IV, being worded :

The Government of the French Republic recognizes the right of His Most Faithful Majesty to exercise his sovereign and civilizing influence in the territories which separate the Portuguese possessions of Angola and Mozambique, reserving rights already acquired by other Powers, and binds itself on its side to abstain from occupation there.

Article III of the German Treaty was to precisely the same effect. A White Book, which was laid before the Portuguese Cortes in 1887, contained a map colouring the whole of Africa between Angola and Mozambique as Portuguese. The publication of this map called forth a formal protest from Great Britain on August 13, 1887,¹ and eventually the Anglo-Portuguese Treaty of 1891 put an end to the trans-continental aspirations of Portugal.²

(8) THE DEMARCATION OF FRONTIERS

On the north Portugal desired definitive recognition of her claim to the territory stretching north of Ambriz, from 8° to 5° 12' south latitude, including the mouth of the Congo. This latter claim was recognized by Great Britain by the treaty of 1884 in exchange for renunciation by Portugal of certain other claims,

¹ See Hertslet, *Map of Africa by Treaty*, ii. 705.

² See Africa No. 2 (1890), February, 1890, C. 5904; and for the map, see Hertslet, *op. cit.*, iii. 1004. Reference should also be made to *The Partition of Africa*, No. 89 of this series.

especially those relating to Nyasaland;¹ but this treaty never came into force, and was superseded by the General Act agreed upon at the Berlin Conference of 1885.

The limits of the Angola province were decided by several treaties following on the broad lines laid down in 1885, viz. that between Portugal and Germany of December 30, 1886,² and between England and Portugal of June 11, 1891,³ the Convention between Portugal and the Congo of February 14, 1885,⁴ as modified by the Treaty and Convention of May 25, 1891,⁵ and by the Declaration of March 24, 1894,⁶ and between France and Portugal of May 12, 1886.⁷ The period of great tension between Portugal and the United Kingdom from 1885 to 1891, mainly on account of the affairs of East Africa, needs only to be alluded to here. The treaty of 1891 provided for arbitration as to a part of the boundary between Angola and Rhodesia. The arbitrator (the King of Italy) gave his decision on this point on May 30, 1905.⁸

With regard to the boundary between Angola and Rhodesia laid down in accordance with the King of Italy's arbitration in 1905 it may be noted that the treaty of 1891 had decided that the Barotse kingdom was to be within the British boundary, and the object of the arbitration was to ascertain what were the actual boundaries of that kingdom. In the words of Article IV of that treaty the line was to follow 'the centre of the channel of the Upper Zambezi, starting from the Katima rapids, up to the point where it reaches the territory of the Barotse kingdom. That territory shall remain within the British sphere; its limits to the westward, which will constitute the

¹ See Africa No. 2 (1883), Cd. 3531, and Africa No. 3 (1884), Cd. 3886.

² Hertslet, *Map of Africa by Treaty*, ii. 703.

³ Ibid., iii. 1016.

⁴ Ibid., ii. 591 (with map).

⁵ Ibid., ii. 592, 594.

⁶ Ibid., ii. 596.

⁷ Ibid., ii. 673.

⁸ See 'Award of His Majesty the King of Italy respecting the Western Boundary of the Barotse Kingdom, given at Rome, May 30, 1905', in Hertslet, *Map of Africa by Treaty*, ii. 1074 (with map).

boundary between the British and Portuguese spheres of influence, being settled by a joint Anglo-Portuguese Commission which shall have power, in case of a difference of opinion, to appoint an Umpire'.

Apparently the arbitration went beyond the terms of the reference, as it interfered with the boundary to the north as well as the west, and also substituted the Kwando for the upper Zambezi. No real attempt seems to have been made to ascertain the limits of the Barotse kingdom, as arbitrary meridians and parallels were adopted which did not in any respect correspond with ethnological boundaries, nor with those of the so-called Barotse kingdom. Such boundaries are bad in principle, and are certain to lead to trouble when a native race or dominion is divided between two spheres of influence.

The Portuguese claims in this region seem to have begun with Serpa Pinto's interference in the disputes between the claimants to the throne of the Barotse kingdom, an interference which led to his hasty flight from the country, and his rescue by the English traveller, Dr. Bradshaw, and the French missionary, M. Coillard. It is evident that at the time of his journey in 1877-8 Portuguese influence was non-existent beyond the territory of Bihé, which was the most easterly territory to which it had penetrated.

(9) CABINDA

The territory of Cabinda is entirely separated from the Angola colony, but nevertheless is politically part of it, and is under the Governor-General, whose headquarters are at Loanda. It is officially known as the District of Congo, and it has some right to this title, as it undoubtedly formed part of the ancient kingdom of Congo, and was included in the discoveries of Diogo Cão in 1482. At the present day it is only distinguished from the remainder of Angola by the fact that it is an enclave lying north of the estuary of the Congo, but its importance is diminished by the

fact that it is cut off from the actual bank of that river by a strip of territory belonging to the Congo State, and does not give Portugal command of both banks.

The authority of the Portuguese over this tract (which takes the name from Cabinda, a port of some importance and the seat of Government) never seems to have been effectively exercised until modern times. It was occupied for a short time in 1783, but a French expedition took it from the Portuguese after eleven months. In 1815 Portugal laid definite claim to it.¹ Its boundaries were delimited by several Conventions: (1) with the Belgian Congo by a Convention of February 14, 1885,² amended by a subsequent Convention of May 25, 1891;³ (2) with French possessions by a Convention of May 12, 1886.⁴ The treaty with Great Britain of February 26, 1884, had recognized Portuguese rights in the Cabinda enclave earlier, but as this treaty never took effect, its definite recognition may be dated from the later Conventions.

¹ See 'Additional Convention to Treaty between Great Britain and Portugal, January 22, 1815', in Hertslet, *Map of Africa by Treaty*, iii. 985.

² *Ibid.*, ii. 591.

³ *Ibid.*, ii. 594 (with map). The Convention was ratified by the Declaration of March 24, 1894.

⁴ *Ibid.*, ii. 673.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE Roman Catholic Church was established in Angola until the Portuguese revolution of 1908, but has been disestablished by the Republican Government. The power of the Church had been great ever since the foundation of the colony, and many missions had been promoted among the negroes, of whom many were nominal Christians. The Church was of late badly organized and the missions had fallen into decay. Caldeira, writing in 1852, complained that most of the churches in the interior were abandoned, and that there were only thirteen priests in the whole colony.

Down to the revolution the Church was under the provincial jurisdiction of Lisbon. There was a bishop at Loanda, but a concordat was under consideration at Rome for a new ecclesiastical organization. Several missions were maintained, of which the most important were at San Salvador do Congo, Landana, Malange, Santo Antonio de Celulo (Libollo), Bailundo, Caconda, Huilla, Bihé, Jau, and Cuanhama.

The Christianity which has been propagated among the native races appears to be decadent, and no doubt in most cases the older beliefs still exist beneath the surface. The greater part of the population, moreover, still adheres to its primitive beliefs without any admixture of Christianity. Mohammedanism is unknown in this region.

(2) POLITICAL

The system of administration still in force was introduced in 1869. According to this the whole province, including the Cabinda enclave, is under the

Governor-General of Angola, whose capital is Loanda. It is divided into the following districts, each under a governor :

1. Congo (which includes the Cabinda enclave). Head-quarters, Cabinda.
2. Lunda. Head-quarters, Malange (provisional).
3. Quanza. Head-quarters, N'Dala Tando (Dala Tando).
4. Benguella. Head-quarters, Benguella.
5. Mossamedes. Head-quarters, Mossamedes.
6. Huilla. Head-quarters, Sá da Bandeira (Lubango).
7. Loanda, the capital, which, with its neighbourhood, forms a separate district under a governor.

(3) EDUCATIONAL

The subject of education does not appear to have received much attention till lately. In 1852, according to Caldeira, its condition was lamentable. At Loanda one school was maintained in which Latin was taught, and there was a handful of primary schools, most of which were open only for about six months in the year ; the total attendance being 7 Europeans and 269 natives. The Church had control over education until the revolution. The bishop presided over a council composed of two professors of the principal school and three other nominated members. There was one secondary school at Loanda, and primary schools at the head-quarters of districts. Mission schools were also maintained, and there was a clerical seminary at Huilla. It was intended to transfer the latter to Loanda and to transform it into a *lycée*.

Since the revolution a scheme for an extended system of instruction among the native population has been drawn up by the Governor-General Norton de Matos, under which primary education and instruction in useful arts are to be given to both boys and girls. Reading, writing, and arithmetic are to be taught to all, while boys are to be trained as smiths, carpenters, stone workers, cultivators, shoemakers, tailors, &c., and girls are to be instructed in sewing, cooking, and

house management. Professional schools of a more advanced type exist in Loanda.

The principal schools existing under this scheme are the following :

The Rita Norton de Matos School (Loanda).

The Norton de Matos School (Caconda).

The Patria Nova School (Bihé).

The Technical School (Pungo Andongo).

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads, Paths, and Tracks*

THE province of Angola possesses very few metalled cart-roads beyond those constructed in 1914-15 for military purposes during the abortive German invasion of the southern districts. Elsewhere, though stone is abundant, the want of water makes road-making difficult. Lack of funds, however, constitutes the chief impediment to Government's programme of highway construction, and hampers alike the colonial administration and the various local authorities.

Since the inception of the Benguella Railway, something has been done to improve the roads in the town of Lobito. The harbour has been linked with the town by a good metalled road, 65 ft. wide and a mile and a half in length, running along the natural break-water formed by the three-mile spit of sand which protects the harbour from the sea. This work, undertaken by Government, was completed in 1914, but the supplementary operation of ballasting the main street of the town, so as to improve the road surface as far as the railway station, has been delayed for want of funds.

In 1910-11 the municipality of Katumbella, a town 8 miles to the south of Lobito, voted sums amounting to £1,200 for the making of a road to convey goods to and from the port. This was done by way of protest against the rates charged by the Benguella Railway Company for the transport of goods, and against the defective and irregular service of trains. The road was finished in 1912, but trade continued to dwindle, and in 1914 Katumbella was reduced from the status of

an independent municipality to that of a village, its local administration being incorporated in that of Lobito.

Feeder roads have been made by the Benguella Railway Company from various points on the line. Huambo station has been connected with the district town of Bailundo, 45 miles to the north; and from Shingwar post a road 47 miles in length has been laid to Belmonte station, head-quarters of the Bihé sub-district. In addition to these, Government promised to build, and had begun work upon, certain other roads on the same table-land, but on the recall of the Governor-General who initiated the project the work was stopped, and does not appear to have been resumed. The projected roads were to run from Kakonda station, on the railway, to Kakonda town; from Huambo to Kubango and to Kwima and Kakonda; and from Bihé to the upper Kwanza. These routes, according to the British Consular Report on Southern Angola for 1914, were traced with little regard to the lie of the land, and would probably prove expensive to maintain. This may possibly be the reason why the scheme remains in suspense; but as the region to be served is an important one, inasmuch as its suitability to white colonization has been established, it is desirable that further efforts should be made to discover routes with reasonably easy gradients.

A similar promise, it is alleged, was given by the colonial administration to construct roads from stations on the Loanda Railway, the promoters of which appear to have expected Government to do for their undertaking what the Benguella Railway Company has done at its own expense. But as the Loanda Railway was begun without sufficient capital, and has throughout had to borrow from Government sums of money for which no adequate value was forthcoming in return, its property has been taken over in satisfaction of the mortgages on it. When the working of the railway is resumed under Government auspices, the needs, in the matter of feeder roads, of the district served by it

will in all probability receive such attention as the state of the colonial finances may warrant.

The central and northern parts of the interior of the province are dependent for land transport almost entirely upon paths and tracks, regarding which there is little, if any, information beyond the indication of their general direction on the official maps. Where cart-tracks exist, they are not macadamized, and vary from year to year, as in similar tropical regions elsewhere ; the route is usually determined by the ruts left by the first bullock-cart that chances to traverse the country after the rains.

(b) *Rivers and Canals*

The only rivers navigable by ocean-going steamers are the Congo, which according to Portuguese geographers is more properly called the Zaire, the name given it by its discoverers, and the Kwanza.

The *Congo* bounds the province on the north as far inland as Noki, which is about 100 miles from the coast, and above which the river is within Belgian territory. A number of its tributaries, flowing northward, traverse the north-eastern portion of the province. Of these the *Kwango* and the *Kasai*, for about 200 and 250 miles respectively of their upper courses, form two sections of the eastern boundary, and they, as well as the *Chikapa*, are reported¹ to be navigable—presumably by motor launches and native boats.

The *Kwanza*, which reaches the sea some 20 miles south of Loanda, has at its mouth an inconvenient but not permanent bar, which generally allows of the entrance and exit of the small steamers that ply between São Paulo de Loanda and Dondo, a little over 100 miles up-stream. For a few miles above Dondo the river is navigable by small boats, but only as far as Kambambe, where cataracts interrupt transit. The upper waters, however, are again navigable as far as the fort of Neves Ferreira on the Benguella table-land—a distance of 50 or 60 miles.

¹ *Anuario Colonial*, 1916.

Among the westward-flowing rivers navigable only by small craft may be enumerated the *Shiloango*, lying north of the Congo, and forming, on the interior, a section of the eastern boundary of the Cabinda enclave; also several rivers of considerable size which enter the sea between the Congo and the Kwanza, and run roughly parallel to both: among these are the *Brije* (*Mbrije*), *Loje*, *Lifune*, *Dande*, and *Bengo* (or *Zenza*). The last-named is canalized so as to supply São Paulo de Loanda with water for domestic and industrial purposes. In the south, the *Kuvo* (*Keve*), *Katumbella*, and one or two others, have stretches suitable for boat traffic, but are either inaccessible from the sea or so much obstructed by rapids that their value is insignificant. The *Kunene*, a large river forming the southern boundary of the province, loses itself in the sandy soil of the coast belt, and even during the rainy season has no visible outlet to the sea. In summer it dries up in the lower reaches, but in its course through the highland region of Mossamedes remains navigable for canoes.

The remaining rivers of the province, those of the south-eastern interior region, belong to the Zambezi system, and flow in a south-easterly direction. It is only the head-waters of the *Zambezi* and its upper affluents, of which the principal are the *Lungwe-Bungo* and the *Kwando*, that fall within the province. The *Kubango* or *Okavango*, which is fed by the *Kwito* and the *Kushi*, flows across the border to the depression of Lake Ngami (see *supra*, p. 6). On all these streams and on the upper Zambezi itself, navigation by light craft is possible for very considerable distances within Portuguese territory. The *Kwito*, in particular, is a wide and deep river presenting no impediment to the passage of boats for about 100 miles above its junction with the *Kubango* at *Diriko*.

(c) Railways

(i) *Construction*.—The province possesses no network of interconnected railways, but merely a series of

separate lines traversing, or intended ultimately to traverse, the country from the seaboard to the interior. Four such lines are at present open, all of which may, in course of time, be amalgamated under a more comprehensive scheme for the penetration of the continent. Enumerated from north to south, they are as follows :

The *Loanda or Trans-African Railway*, constructed by the Companhia do Caminho de Ferro através de Africa, under a concession which has been repurchased by the Portuguese Government in order that the railway may be worked as a State line, is a metre-gauge railroad running from Loanda eastward for 226 miles to Lukalla, near Malange.

The *Lukalla-Malange Railway*, constructed by Government as an extension of the preceding line, is intended to tap the fertile regions on the banks of the Kwango river, and then to proceed to the Belgian frontier *via* Lunda. It is a metre-gauge railway, and 87 miles are now open.

The *Benguella Railway* is being built to a gauge of 3 ft. 6 in. by a company affiliated to Tanganyika Concessions, Ltd. It runs inland from Lobito Bay and Benguella to Bailundo station and Shingwar, and is intended to connect ultimately with the British South African and Belgian Congo railway systems at Kambove, in the Katanga mining district. It has 322 miles open, 67 miles under construction, and 415 more in project within Angola, besides a further projected length of 527 miles in Belgian territory.

The *Mossamedes Railway* is a Government line with 114 miles now open for traffic and an extension of 41 miles under construction, its provisional terminus being Lubango, on the Mossamedes plateau. Its gauge of 60 centimetres (23.6 in.) is too narrow for the traffic with which it will be compelled to deal, should the scheme entertained by the Germans immediately before the war, for the economic penetration of southern Angola from South-west Africa, be

adopted in a form modified to meet the altered conditions after the war.

But the German interest in railway projects for South Angola dates much farther back. As early as 1899, as the outcome of the visit of Cecil Rhodes to Berlin, an agreement was entered into between the German Government and the British South Africa Company for the taking over of the line projected by the *Companhia de Mossamedes*, a concessionary company, the capital of which was mainly French. That line was to have used Bahia dos Tigres (Tiger Bay) as its starting-point, and to have crossed southern Angola *via* Humbe, in the direction of the British or the German frontier. The Anglo-German agreement determined that the line should serve the copper-mines of Otavi and Grootfontein in German South-west Africa, and be extended south-east so as to link up with the Rhodesian railway system. The railway thus projected seemed likely to benefit the German and British colonies more immediately than Angola, but would at least have made Bahia dos Tigres a great port of transit, competing with Lobito Bay.

The scheme veiled a German plan for securing further advantages at Portuguese expense by picking a quarrel with Portugal whenever a propitious occasion might arise. The southern frontier of Angola, as demarcated by the Portuguese, had never been formally ratified by the Germans, and every invitation by the former for amicable adjustment had been evaded or postponed (cf. p. 43). The ulterior object of these delays will be discussed in connexion with the question of labour supply, but the bearing of the railway scheme on the frontier question lies in the necessity of any line constructed under it traversing the debatable tract of territory.

(ii) *Finances*.—The following table shows the financial position of the four railways :

Railway.	Mileage open in 1915.	Cost of Construction up to 1915. <i>Escudos.</i> ¹	Average Annual Surplus or De- ficit 1911-15. <i>Escudos.</i>	Total Profit or Loss to end of 1915. <i>Escudos.</i>
Loanda . . .	226	12,459,343	+ 19,097 ²	- 1,486,910 ²
Lukalla-Malange . .	87	2,665,861	- 21,710	- 183,690
Benguella . . .	322	21,827,323	+ 124,856	+ 417,206
Mossamedes . . .	114	2,236,185	+ 32,446 ³	+ 28,894
Total . . .	749	39,188,712	+ 154,689	- 1,224,500

(d) Posts and Telegraphs

The postal and telegraph services in Angola are sufficient for present requirements. There is a general post and telegraph office in Loanda, and in addition to the land lines of the Government telegraph service, there is a submarine cable connecting the ports of Loanda, Benguella, and Mossamedes, and owned by the West African Telegraph Company. The other coast and up-country towns possessing postal and telegraphic communication are :

Congo district.—Cabinda, Ambrizette, Kakonga (Landana), Maquela do Zombo, and San Salvador do Congo (postal only), and Santo Antonio do Zaire.

Lunda district.—Malange.

Loanda district.—Ambriz, Ngabela, Amboim, and Novo Redondo.

Benguella district.—Benguella, Bailundo, Bihé, Katumbella, Kuma and Huambo (postal only), and Lobito.

Mossamedes district.—Mossamedes, Bahia dos Tigres, Porto Alexandre.

Huilla district.—Lubango, Shibia, Fort Huilla, and Humpata.

¹ The *escudo* or Portuguese dollar is nominally worth 4s. 5½*d.*, but its exchange value recently has been 2s. 6*d.* (see p. 85).

² This line was worked at a heavy loss from 1889 to 1909 ; there was a profit of 96,433 *escudos* in 1910, followed by deficits in 1911 and 1912 ; profits were recorded on a rising scale from 1913 to 1915, but fell in 1916 to 27,090 *escudos*.

³ From 1908 to 1913 there were deficits averaging over 36,000 *escudos* per annum ; in 1914 a surplus of 40,923 and in 1915 a surplus of 208,729 *escudos*, the latter being due to exceptionally heavy traffic in connexion with military operations.

(2) EXTERNAL

(a) Ports

The more important ports are Loanda, Lobito, Benguella, Mossamedes, Porto Alexandre, and Bahia dos Tigres. Cabinda has also the makings of an excellent port.

Ambroz is of declining importance, as it lacks facilities for loading and discharging cargo. The bay is an open roadstead with anchorage in 7 to 10 fathoms.

Loanda has a bay with an anchorage of about $3\frac{1}{2}$ square miles, or, in other words, with accommodation for 150 vessels, allowing a berth of 70,000 square yds. to each. This anchorage has a depth of water ranging from 4 to 20 fathoms, and is protected to the west by a sandy island. The harbour lies from north-east to south-west, the entrance being at the northern end, guarded by the small fort of San Pedro.

Lobito lies 23 miles north-east of Benguella, and is the terminus of the Benguella Railway, described above. The conformation of its harbour is very similar to that of Loanda. The anchorage ground has a depth of water of 3-22 fathoms, and accommodation for 70 large vessels. It is free from obstruction, and accessible at any hour of the day or night. There was formerly difficulty in obtaining sufficient water for local requirements, but now that the Benguella Railway Company has taken the matter into its own hands, and laid a pipe from the Katumbella river, the supply is not merely adequate but allows of water being sold to passing vessels for their wants. The water, moreover, is of remarkable purity.

Benguella and *Mossamedes* are both open roadsteads, the former exposed to the violent storms from the north known locally as *kalema*. Nevertheless, until the opening of the railway, Benguella retained its position as the second port of the province. Mossamedes has an anchorage of the same character, but its total area of $1\frac{1}{2}$ square miles, with depths ranging from

2½ to 18 fathoms, is so rocky in parts that its capacity can only be reckoned sufficient for 66 vessels at a time.

Porto Alexandre (Port Alexander), about 28 miles to the south of Mossamedes, is a valuable sheltered roadstead, which before the war was a special object of attention on the part of Germany. Its anchorage extends over 3 square miles, with a depth of water ranging from 5 to 20 fathoms, and is thus capable of receiving 130 vessels at a time.

Bahia dos Tigres (Tiger Bay), about 62 miles farther south, is another port, the possession of which was coveted by Germany as a compensation for the deficiencies of Swakopmund. Were there any natural water-supply within reach, it would be the most valuable of all the Angola ports, as its anchorage covers no less than 128 square miles, with a depth of water similar to that of Lobito. It could, therefore, accommodate 5,500 vessels at once. On the seaward aspect it is sheltered by a sandy peninsula, which, however, is so low and flat that in bad weather the harbour is liable to a heavy ground-swell. This disadvantage, as well as that of the defective water-supply, could no doubt be overcome, if the port were developed and frequented by shipping.

Statistics of ocean-going shipping entering the chief Angola ports in the years 1909, 1911, and 1913 are given in the Appendix (Table I).

(b) *Shipping Lines*

Before the war Lobito used to be served by the Deutsche Ost-Afrika and the Union-Castle lines as well as by the regular boats of the Empreza (now Companhia) Nacional de Navegação. Loanda and the smaller ports used to receive calls almost exclusively from the vessels of the Portuguese company, which maintained a monthly express service *via* Loanda and Lobito to Cape Town and Portuguese East Africa. This was supplemented by a coasting service of smaller vessels, calling at Santo Antonio do Zaire, Ambrizette, Ambriz, Loanda, Benguella, Mossamedes, and Porto Alexandre.

These used to do two trips a month out and home, and in addition the company sent a monthly cargo boat, not carrying passengers, to San Thomé and Loanda.

Irrespective of war conditions, this service is admittedly inadequate, and will prove more so when railway construction is again taken in hand. The congestion produced in Portuguese Africa generally is a matter of grave national importance, and the authorities are alive to the necessity of dealing with it.

(c) Telegraphic and Wireless Communications

The three cable stations of the West African Telegraph Company at Loanda, Benguella, and Mossamedes communicate with one another; southward they are connected with Cape Town, northward with San Thomé and Príncipe, and thence with Accra and St. Vincent (Cape Verde Islands).

A project for wireless installations to link up San Thomé with Loanda, and Loanda with Swakopmund and with Kakengi and Zumbo, Zambezi stations in Angola and Mozambique respectively, has been sanctioned by the Portuguese Government. The Governor-General appointed to the province in August 1918 is reported to have brought instructions from Lisbon to expedite this scheme, a contract for which has been entered into between the Government and the Marconi Company.

(B) INDUSTRY

(1) LABOUR

The labour problem, a peculiarly complicated one in the case of Angola, has been ably handled by the late Governor-General of the province, Senhor Norton de Matos, and by the Curator-General of Emigrants in his capacity as Secretary in Charge of Native Affairs. The task set before the latter official and his newly-created department, which was constituted by local

order ratified by Ministerial Decree of October 20, 1913, was a heavy one. It amounted to the reform and consolidation of the existing labour laws, and the elimination of a series of abuses which by established custom had acquired the force of law. This entailed, as a preliminary measure, the taking of a provisional census—the first systematic attempt in this direction ever made in the province—and involved a study of the tribes affected by the contemplated change of system. It was necessary to take stock of their habits of industry or idleness, their ideas of justice, and the extent to which these might be recognized and codified for administrative and judicial purposes without doing violence to European conceptions of law and of social organization. It was necessary to prepare at the same time a tentative inventory of native-owned wealth, native resources and industries, &c., with a schedule showing the chief commodities of the province and the various agricultural and industrial centres in which they are produced. The department was also required to furnish a statement of the existing distribution of native labour, as well as the outlines of a scheme for utilizing the available labour force, preferably within the district or centre in which it might be found, but elsewhere in the province should circumstances demand its migration.

It was not to be expected that complete and accurate statistics would be forthcoming, but the framework of the machinery could at least be set up, with provision for alteration and improvement within the limits set by the Organic Charter of the province. Its practical operation was facilitated by the general provisions of Portuguese colonial law. For instance, Article 1 of the Ministerial Decree of May 27, 1911, which codified that law, lays it down that 'every native of the Portuguese colonies shall be bound, morally and legally, to earn his livelihood and improve his social condition by means of labour'. This and subsequent articles define the limits within which the principle shall operate, and take cognizance of special cases for

exception or exemption. The native 'shall have full liberty of choice as to the manner of fulfilling this obligation, but on his failing to do so, the public authority shall enforce compliance'. Articles 2 and 3 define 'compliance', and Articles 5, 31, and 32 require the public authority, when proceeding to enforce it, to give the recalcitrant the option of taking up and cultivating vacant land if available, or of accepting employment as a labourer. Where neither land nor employment is available, no compulsion is to be exercised. Thus the measure is educative without being unduly onerous.

(a) Supply

Particulars as to sources of labour supply, necessarily incomplete but valuable as far as they go, are to be found in the first Report of the Department of Native Affairs, Angola. The total population of the province is there stated to be 1,984,824, but this figure is almost certainly an under-estimate. A total of 2,125,361 is given in the *Anuario Colonial*, 1916, which is probably nearer the mark than the Census Report, the latter being admittedly incomplete in details.

For purposes of the labour problem, however, the most important information in the Census Report relates to the numbers of able-bodied adults on the one hand, and of children, aged and infirm persons, on the other. Assuming that the proportion of able-bodied adults to the total population is uniform throughout the province, the total number of these would be, roughly, 1,110,000 (500,000 males and 610,000 females). That this reservoir of labour has not been drawn upon to any appreciable extent is apparent from other tables contained in the Census Report, which show that the total number of labourers recruited and employed within Angola in 1913 was 29,500. The proportion of male to female employees was very nearly 4 to 1. Agricultural labour occupied 79 per cent. of the total number. The number of labourers recruited in Angola

for San Thomé and Príncipe might, it is estimated, be raised to 10,000 without prejudice to domestic requirements, and even with this outside figure the total of labourers engaged would not exceed 3·5 per cent. of the available supply, the men employed being about 6·5 per cent., and the women about 1 per cent., of the adult male and female population respectively.

The reasons for this difference between numbers available and numbers employed have been carefully investigated by the Department of Native Affairs. In the first place, the suitability of the able-bodied population to agricultural or industrial work varies greatly from district to district, the chief factor being probably the degree of distaste, on the part of the natives of a district, for manual labour of any kind, and especially protracted labour. But apart from this, there is the fact that many white employers begin undertakings on a scale out of proportion to their available capital, and, when they find themselves in difficulties, defer indefinitely the payment of their employees' wages. The natives, naturally, come to distrust contract labour, and show a very marked preference for work on daily wages.

The results of the investigations made in the six districts by the commissioners who collected the materials for the Census Report are instructive, and may be briefly summarized as follows. It should be borne in mind that the Report refers to conditions prevailing in 1913.

In the *Congo* district labour conditions are satisfactory alike to Europeans and natives, and the supply forthcoming is adequate to local requirements. In the *Lunda* district labour can be engaged only by the day, as natives who had been hired for the collecting of rubber were frequently left unpaid by employers hard hit by the rubber crisis. The *Loanda* district suffers from a serious shortage; the Ambaka natives, in particular, are averse from all work beyond the cultivation of small garden plots, and Government has

been constrained to decree enforced labour. The planters of this neighbourhood desire to introduce workmen from the south side of the Kwanza river and also from Benguella; but, the latter district being at present free from sleeping-sickness, it is deemed imprudent and inhumane to employ Benguella natives within the fly zone of Loanda. The centres of Tunda, near Novo Redondo, and of Ikolo and Bengo, near Loanda, though close to the fly belt, are free from the pest, and, like Amboim, some 90 miles north-east of Lobito, are well populated and well supplied with labour for agricultural work. The Killengi tribe, to the north of Loanda, furnish contract labour for San Thomé and for railway construction. In *Benguella* district the natives are ready enough to work by the day, but reluctant to enter upon contracts. The *Mossamedes* natives, Bushmen for the most part, are very averse from labour; but the measures taken by Government seem to have reconciled the plantation workmen to the conditions of their contracts, and there has been no recrudescence of the unrest and ill will that threatened trouble in 1912. In *Huilla* district the large proprietors have usually assigned allotments of land to their labourers, furnished them with seed, and purchased a fixed percentage of their crops. This system has had encouraging results, and Government is anxious to see it extended over the whole of the upland plateau.

(b) *Emigration and Immigration*

Apart from the migrations of labour within the Province, Angola furnishes annually a contingent of estate hands to the cocoa islands of San Thomé and Príncipe. The history of the controversy which for many years past has centred upon these arrangements will be found sufficiently discussed in *San Thomé and Príncipe* (No. 119 of this series), but its bearing on the affairs of Angola demands some notice. In 1912, to go no farther back, the Portuguese Government decided that recruiting for the islands, instead of being a function

of the Government of Angola or Mozambique as the case might be, was to be carried out by a *Junta* specially nominated for the purpose ; or, if the planters of the islands preferred it so, a company might be formed whose operations should be governed by the provisions of the decree ratifying its constitution. The latter alternative found favour, and the island planters created, under the title of the *Sociedade de Emigração para San Thomé e Príncipe*, a limited liability company, not working for profit but co-operatively, the shares of which could be held only by members of the planting community interested. Its first working year was 1913, and the figures of its operations, so far as Angola is concerned, are as follows :

<i>Year.</i>	<i>Recruitments.</i>	<i>Repatriations.</i>
1913 . . .	1,070	2,373
1914 . . .	1,602	4,249
1915 . . .	4,876	5,081
1916 . . .	4,233	3,131
1917 . . .	2,327	463
Total, 1913-17	14,108	15,297

A special case, which for many years engaged the attention of both Portugal and Germany, is that of labour recruiting for what was German South-west Africa among the various tribes composing the Ovambo race. These, according to recent estimates, number about 156,000, and are to be found both in Portuguese and ex-German territory, as well as in the debatable zone between the Kunene and the Kubango or Okavango. Knowing that the Germans placed the boundary line somewhat farther north than the Portuguese placed it, the latter made repeated proposals for an amicable adjustment, but these overtures met with no response, as it suited the Germans to keep the question open until their plans for 'an administrative protectorate over Angola' should ripen. Meanwhile the latter made free use of the Ovambo country, both within the disputed belt and in admittedly Portuguese territory,

as a recruiting ground for labour for their copper and diamond mines at Tsumeb and Lüderitz Bay.

The theory on which they justified these repeated trespasses was that 'tribes of identical manners and customs could only be educated by means of a unifying system worked by one and the same Government, and Portugal's methods with the natives were not Germany's'. Moreover, as the *Berliner Neueste Nachrichten* pointed out in January 1913, southern Angola possesses two excellent seaports, Bahia dos Tigres and Porto Alexandre, whereas the German port of Swakopmund is 'a mere anchorage, without shelter, and with every possible defect'. Portugal defended herself by prohibiting recruitment by foreigners within her territory, and Germany retaliated by assigning three million marks in her supplementary budget for 1914 for the construction of a railway to penetrate the Ovambo country, and connect the Otavi Railway, which serves the copper-mines at Grootfontein and Tsumeb, with one or other of the two ports of southern Angola.

From the point of view of labour, the race in question is especially valuable. Its people are handsome and athletic, with little of the negro in their appearance, and, unlike the majority of Africans, the men work as hard as the women. They are industrious agriculturists, working on a well-developed system of cultivation. Unfortunately, the lack of effective Portuguese control in the Ovambo regions was noted and turned to account by the Germans, who, after the destruction of the Hereros, drew the bulk of their labour force from these regions.

On the subject of immigration, the only remark called for concerns the convict population which Portugal still ships out to Angola. She maintains a disciplinary battalion with head-quarters at Loanda, and disciplinary companies at Benguella and Mossamedes; these absorb a certain proportion of the annual shipments, but the remainder have to find employment for themselves as best they can.

(c) Labour Conditions

It remains to add to what has been said above that the special case of the labourer returning from San Thomé or Príncipe has received due attention from the public authorities of the province. It has been borne in upon the Government that the Angolan, naturally thriftless and improvident, returns to the African continent with these defects, if possible, accentuated. In the islands everything is done for him. He is housed, fed, clothed, and medically attended free of charge, and the bulk of his wages are placed to his credit against his repatriation or re-engagement, a small dole only being given him as pocket-money. When paid off and landed at an African continental port, he is frequently victimized, and after a few days of riotous living may find himself penniless and starving. To render this practically impossible, the Government has arranged that the balance of his wages shall be payable to him only when he reaches his home up-country or, at his option, takes up an allotment within the reservations marked out for returned labourers. Several such reservations have been created, but so far the results have not been very encouraging. Natives usually prefer to re-engage for estate work, and in many cases return to San Thomé.

The conditions governing contracts for the engagement of labour for the islands are set forth in a Ministerial Decree having the force of law, which was issued at Lisbon on July 20, 1912. It is of general application wherever the labourer may be recruited, and fixes the maximum period for duration of the contract at three years in the first instance, reserving to the labourer the option, on expiry of the term agreed upon, of re-contracting for a further period, subject to the same maximum, or of claiming repatriation then and there, with payment of the bonus due to him from the repatriation fund.

But as the circumstances of the different African colonies where labourers are, or may be, recruited vary

considerably, the decree reserves to governors-general of provinces powers for the regulation and supervision of recruiting operations in conformity with local conditions. In exercise of these powers, the Governor-General of Angola issued in March 1913 a notification determining the local limits within which recruiting may be undertaken. It defines the duties and powers of the Curator-General of Emigrants at Loanda, and his relations with the various public authorities at the ports and up-country, all of whom are enjoined to work in co-operation with him in respect of these matters. For the better supervision of the work of recruiting, and the repression of attempts at coercion or other abuses, local public authorities are required to select, within the various recruiting areas in their jurisdictions, suitable sites for concentration depots, to be duly visited and inspected when in use, so that the authorities may satisfy themselves as to the regularity of the methods employed. Certain routes are specified by which alone recruits are to be brought down to the coast, and the maximum number of hands to be engaged in any given year is to be notified in advance for that year. Thus the arrangements for securing the observance of the Ministerial Decree, in the spirit as well as in the letter, are fairly complete.

(2) AGRICULTURE

(a) *Products of Commercial Value*

As long as the slave-trade survived, the only Angola product regarded as deserving attention from the commercial point of view was native labour—a tradition which proved hard to eradicate, despite much practical evidence of its fallacy. Hence the potential wealth of the province has largely remained unexplored by the agriculturist. For many years the abundance of the products of indigenous plants of the country was in itself a source of discouragement to planting enterprise, or an excuse for inaction. And to this day most of the commodities exported are non-cultivated. Cotton, sugar, and—in the Cabinda enclave—cocoa, have been cultivated, but rubber, palm kernels, palm oil, and coffee still figure more largely in the list of exports, and these are obtained mainly, if not entirely, from plants and trees growing wild.

Vegetable Products.—*Cassava*, or *manioc*, is the *Manihot aipi* of the West Indies and South America, acclimatized here and furnishing an abundant and wholesome food, eaten by white colonists as well as by natives. It flowers very scantily and bears few seeds; its reproduction is usually effected by cuttings, as any part of the stem or branches takes root readily. The usual size of the tubers is six or nine inches in length, with a diameter of one or two inches; they sometimes grow up to two feet long, and proportionately thick. The tubers are fit for eating at nine months from planting, but do not attain their best condition till the fifteenth or sixteenth month, and may, without deteriorating, be left in the ground for two or three years. A certain amount of the flour or meal made from them, known locally as *fuba*, is exported, and were its value as a food-stuff better known, much more might be made of it in outside markets than has as yet been attempted.

Cocoa has been grown in certain areas of the coast belt, in that portion of Angola which lies between the

Congo and the Kwanza, but commercially its greatest success has been in the Cabinda enclave to the north of the former river. The forest region of Mayumbe, which extends beyond the limits of Portuguese territory into French Equatorial Africa and the Belgian Congo, has been found almost as well adapted to cocoa as the islands of San Thomé and Príncipe. Here the Companhia de Cabinda possesses a concession covering some 54,000 acres of valuable land, and though the company is actively exploiting its large forests of oil-palms, it has developed its cocoa plantations to such good effect that in 1918 it had more than 3,400 acres under cocoa and 543,000 trees in bearing, not counting those planted in 1911, which should come into bearing in 1919. The progress made in this respect is reflected in the company's exports of cocoa, which in the years 1913-17 were successively 19, 56, 84, 132, and 203 tons.

Coffee, in Angola at least, must be regarded as mainly a wild product. Whatever may have been the circumstances of its first introduction, its dissemination throughout the regions where it is now to be found has presumably been the work of birds, monkeys, or other animals. If originally planted in the coast belt, as is possible, by the early missionaries, it has not survived there, the climate being too arid and the region too treeless. In the damp forests of the second elevation from the level of the sea it has found an environment such as it requires. Enkoye (Encoje), about 200 miles inland from Ambriz, is a noted centre, where the native gatherers search for coffee just as they do for rubber or gum, and treat it by primitive processes before bringing it down to the traders for sale or barter.

Another coffee-producing region is the fly-infested and partially depopulated area of Dembos, extending southward to Kazengo and Golungo Alto, and to the country traversed by the Loanda-Malange Railway. Here, in addition to the wild coffee of the forests, extensive plantations have been formed, but these suffer from scarcity of labour owing to the ravages of

sleeping-sickness. The coffee grown is, moreover, of inferior quality, although up to the outbreak of hostilities the bulk of the crop used to find a market in Hamburg.

Still farther to the south, and beyond the range of sleeping-sickness, Amboim, about 100 miles south-east of Novo Redondo, has been made a planting centre. Success here seems assured, as labour is plentiful, and the grade of coffee raised is excellent.

The average annual export of this commodity from the whole province is about 4,560 tons, of which the share of the Cabinda enclave is about 100 tons.

Fibres. A very useful fibre for paper-making and other purposes is the inner bark of the *imbondo* or baobab tree (*Adansonia digitata*), the commonest of all trees in the coast regions between the Congo and the Kwanza, and found, though less abundantly, as far south as Novo Redondo. The trunk of the tree, which is of enormous circumference in proportion to its height, has no wood capable of being sawn into planks, but merely a core of pith permeated with irregular layers of woody fibre, apt to decay while the tree is still alive and to leave a cavity in the centre ; this the natives utilize as a storage tank for rain-water. The fibre of commerce is obtained by chopping off the soft outer bark, and stripping the inner bark in large sheets. This can be taken off all round the trunk of the tree without apparent injury, as a fresh layer grows which in its turn can be removed six or eight years later. Care is taken to strip this bark only where the outer bark is free from knobs and scars. The bark is saturated with sap when first cut, and has to be dried in the sun and beaten to soften it and free it from pith as far as possible. It is then made into bales by hydraulic pressure for shipment to the European market, where it realizes from £9 to £10 per ton.

The natives use it themselves in a variety of ways. String and rope are made of it ; or it is simply cut into strips and used to support loads. Cut into suitable widths, it is woven into strong sacks for the transport of coffee and ground-nuts. Finer pieces are treated by

being pulled out so as to form a coarse network, of which the edges are sewn together to make bags for grain, gum copal, or cotton.

Many other fibre-yielding plants are to be found throughout the country, and these deserve more attention than they have hitherto received, if the province is to make good its ambition of becoming the storehouse and granary of Portugal—a perfectly justifiable ambition in the light of its native possibilities. Several useful agaves, including the *Agave sisalana*, are now being cultivated experimentally, also two sansevieras (*S. longiflora* and *S. angolensis*), respectively north and south of Ambriz. But so far their products have not figured to any great extent in the lists of exports. A sansevieria fibre from Angola, the *jife*, has been tested and reported upon at the Cordoaria Nacional at Lisbon, and found equal in resistance to the best Riga hemp, but not up to the standard of Manila hemp. It is, nevertheless, said to be suitable for the manufacture of cables.

Ground-nuts are the fruits of a small leguminous plant, grown by the natives of the warmer parts of Angola, partly for trade, but to a great extent for their own consumption, as both the green and the ripe nuts enter largely into their dietary. The demand for the ripe nut, chiefly in France, is large and steady, so that the failure of the European planters in Angola to cultivate this product on an extensive scale can only be explained by the prejudice that exists against planting crops which natives of the country have adopted as their own.

The plant (*Arachis hypogaea*) requires a rich soil, preferably that to be found at the bottom of valleys or on the banks of rivers. It grows from one to two feet in height, and its flower-stems have the habit, after blossoming, of curling downwards and forcing the pod into the ground to ripen under the surface. It is sown in October or November, at the beginning of the rainy season, and about April the green nut is ready for eating. But where the ripe fruit is required, the plant is left

undisturbed till July or August, when the seed has attained its maximum of oiliness. In its unripe state it is eaten roasted in the husk, and is then wholesome and palatable; when fully ripe it is so rich a food as to be edible only in combination with manioc or some other farinaceous matter, or as an ingredient in a stew. For native domestic purposes a certain amount of oil is extracted from the fruit by processes both primitive and wasteful; it is more profitable for the trader to buy the nuts or take them in barter.

It is not clear where the nuts sold are consumed; the export must have fallen off very considerably of late years, seeing that ground-nuts have not been mentioned in the official returns for Angola exports since 1912 (when their value was only 56 *escudos*), though since that year the export from Portuguese Guinea has quadrupled itself, and ground-nuts have now become the most valuable commodity shipped from that province.

A plant of similar habits, the *Voandzeia subterranea*, which also ripens its fruit beneath the surface of the soil, is grown, but not on any large scale, in the neighbourhood of Kambambe on the Kwanza, and in the same region there is to be found a handsome foliage plant, the *Solanum saponaceum*, whose fruit, like that of the well-known *Sapindus trifoliatus* of southern India, serves as an efficient substitute for soap.

Gums. Gum arabic is found in the Dembos region and sold in Mossamedes, and gum elemi (*mubafo*), the product of *Canarium* (chiefly *C. schweinfurthii* and *C. edule*), was formerly brought in large cakes from about Bembe, but was never highly esteemed in the European market. Besides these, some *almeidina* (the coagulated milk of a *Euphorbia*) and two kinds of gum copal are exported from the province. One of these copals is known as red gum copal, the other as white Angola gum. The former might with propriety be classified as a mineral, as it appears to be the fossilized droppings of a forest-tree which has disappeared without leaving a trace of its form. The latter is certainly

a vegetable product, but the tree from which it is obtained has not been identified with certainty; all that is known is that it is not the *Trachylobium hornemannium* from which the copal of Zanzibar is derived, nor is it the *Copaifera guibourtiana*, the copal tree of Sierra Leone, as neither of these exists in Angola. The red gum, known to the natives as *makata*, is found chiefly in the Mossulo country to the south of Ambriz, and also farther north, in the vicinity of Cabeça da Cobra, between Ambrizette and the mouth of the Congo. It generally lies concealed under a layer of hard ferruginous clay, sometimes cropping out above the surface, but oftener at a depth of from six inches to a couple of feet, with an occasional thickness of two or three feet. The native diggers do not attempt to bring in the slabs and small boulders in which it is found, but for convenience of carriage break them into more or less uniform fragments. This gum is very pure, and is free from leaves, twigs, insects, or other adventitious matter usually found in fossil gums.

Up to the sixties of last century a large trade in copal was carried on with the United States, but the Civil War interrupted this, and the commodity has never since regained its former importance. The quality of the copal from Angola is reported to be indifferent. As a gum it is soft and opaque, and sells at a lower price than similar gums from elsewhere. These defects are probably those of the white Angola gum. In Angola, as in German South-West Africa, fossil gum is apparently becoming exhausted.

Oil-palms. The *Elaeis guineensis* is very abundant in the colony near the coast, where it fringes the banks of most of the streams down to about 10° 30' south latitude. Inland to the north, where the soil is rich, as for instance on the undulating plains around Bembe in the Congo district, it grows quite freely, even away from running water. A very fertile centre in this respect is the vicinity of Novo Redondo and Egito, to the north of Benguella, for the exploitation of which a company was in project when war broke out.

The comparative neglect of this tree, and of the coconut palm, seems inexplicable, when the price of palm oil (as high in Angola as in London) must be known to every Portuguese resident. Protectorates such as Nigeria and Sierra Leone, not to mention the Belgian Congo, owe a large share of their prosperity to the oil-palm, though the nuts in some cases have to be transported over long distances before shipment, whereas in Angola most of the oil-bearing regions are within easy reach of seaports. Even should planting be necessary, there are few trees so profitable which demand so little labour for their cultivation.

Rubber, like coffee, is a product which was formerly collected from wild plants only, but it is now produced increasingly on cultivated plantations. The main source of the wild rubber, which still composes the bulk of the export, is a *Landolphia* (*L. florida*, according to earlier writers, but now stated on consular authority to be *L. kirkii*). It is a creeper with numerous branches, and its stem attains the thickness of a man's thigh. Every part of it, from the roots upward, yields latex. It is to be found in the forests described above, where wild coffee grows, but is even more abundant farther inland, in the Lunda district. A characteristic of this plant is that the latex dries so rapidly on exposure to the air that it cannot be tapped in the fluid state and removed to a central shed for treatment, as is the case with the *Hevea*, *Manihot*, and *Ficus* varieties. To avoid its coagulation on the stem and the sealing-up of the cut made, the natives smear it on their own bodies, covering their arms, shoulders, and chests with layer upon layer of it until a solid sheet is formed, which is then stripped off and cut into squares for transport to the purchaser. The rubber thus prepared is of good quality, but to add to its weight, and possibly to prevent its becoming gummy and adhesive from contact with perspiring human skin, the natives are apt to adulterate it by an admixture of earth or sand.

Another source of wild rubber is the tuber known as *bitinga* (*Raphionacme utilis*), a root resembling a yam

in colour, but of the shape and size of a small turnip. It is found in comparatively arid soil in southern Angola, and yields a fair quantity of latex coagulable into rubber of good quality. But the supply is limited by the restricted area in which it is found, and though there is no difficulty in reproducing it, the growth of the tuber to the laticiferous stage is so slow that the plant has been discarded in favour of the more productive plantation trees.

Of these, the Ceará rubber-tree (*Manihot glaziovii*) has succeeded in commending itself to the Angolan planter more than other species preferred in other countries. By 1910, some 2,000 acres were reported to be under this tree in the Loanda district alone, and by 1914 the province was said to possess 2,600,000 young trees, chiefly Ceará, which would cover 7,000 to 10,000 acres of plantations. The tree grows at elevations up to 3,000 ft., and, as in San Thomé and Príncipe, sows itself so freely as to overrun the land like a weed. But in Angola, otherwise than in the islands, it has justified its existence by yielding rubber of excellent quality, though in characteristically small quantity—as many ounces per annum as the Pará rubber-tree (*Hevea brasiliensis*) yields pounds. For the rest, it shows the same defects in Angola as elsewhere, the tree being fragile, easily overthrown or broken by high winds, and very liable to injury from careless tapping, as the outer bark and the cambium layer are thin. Moreover, coagulation of the latex on the tree is responsible for an undue proportion of scrap rubber. But the planters have discovered that by keeping the surface of the trees moist with an alkaline solution they can retard coagulation and collect practically the whole yield in the form of milk. They estimate the average yield of the tree at $1\frac{1}{4}$ oz. per annum, which, as far as this species is concerned, is quite as good a result as has been attained elsewhere outside Brazil, though insignificant compared with the yield of the Pará rubber-tree in Ceylon and Farther India.

Next in popularity with the planters comes *Ficus*

elastica, the source of the 'Rambong rubber' of the Malay States and Java, where it has been virtually discarded in favour of the Pará rubber-tree. The advantage of the *Ficus* is its very abundant yield, coupled with its ability to stand much rougher treatment at the hands of the tapper than any other species. With Pará rubber the Angolan planters have been unfortunate. The seeds had to be brought at great expense from Ceylon, and only a small proportion germinated.

The average annual export of rubber for the years immediately preceding the war was 2,440 tons in round numbers, but it is improbable that plantation rubber contributed even one per cent. of this quantity.

Sugar-cane. For fifty years or so previous to 1911, sugar-cane and sweet-potatoes were grown in Angola almost exclusively for the production of alcohol, one of the most important industries of the colony. In that year, however, Government decreed the abolition of its manufacture. Compensation was to be given the planters, and to this end a 3 per cent. loan of 3,000 *contos* (about £600,000 at the exchange of the day), secured by the proceeds of an increased import duty upon wines and spirits, was issued, redeemable by yearly drawings of 2 per cent. of the total sum raised. The redemption was to be spread over a period of thirty years, the drawings up to 1916 to be at prices ranging from 80 to 100 per cent. of the face value of the bonds, and after that year at par. The rate of the compensation payable to the planters was 632 *escudos* 42 cts. per hectare of alcohol (a unit taken as equivalent to 1.5 hectare under sugar-cane or 3 hectares under sweet-potato).

Planters who could prove, by production of land-tax receipts, that they were entitled to this compensation, received 30 per cent. of it immediately, and the balance of 70 per cent. when they were in a position to show that the areas formerly under cane or sweet-potato had been brought under other crops. Those who already possessed sugar factories, or installed

them on publication of the decree forbidding the manufacture of alcohol, or who sent their cane to a sugar factory during the three years following 1911, were similarly indemnified, subject to the condition that they should increase their cane plantations by 1 hectare for every 500 *escudos* (£100) received as compensation. Allowance was made for the fact that in many cases the cane planted for spirit-making was unsuitable for the manufacture of sugar, and had to be replaced by a different variety.

The immediate effect of this measure was to give a great impetus to the production and export of sugar, for by 1913, according to the British Consular Report for that year, no less than seven principal factories were at work producing sugar, and the output for the year was about 4,600 tons. The area under cultivation was then being rapidly extended, and had it been possible to extract the full yield of the planted cane and convert it into sugar, the quantity available for export would have been some 22,000 tons of unrefined sugar. The matter was not mentioned in the British Consular Report for the following year, but it soon became apparent that the industry had received a severe check, from which it has not recovered. In his report for 1914, the Italian Consul-General stated that only two companies were engaged in sugar-making—one, the *Companhia do Dombé Grande*, an old-established concern; the other, the *Sociedade Agrícola de Cassequel*, a new undertaking which had only then started operations on a concession of some 25,000 acres close to the railway line at Katumbella. The fall in the export of sugar from 4,600 tons in 1913 to about 3,000 tons in 1914 is, he remarks, inexplicable in the light of the facts. A liberal protection had been accorded to Angola sugar entering the port of Lisbon, a total exemption from duty had been granted to sugar-manufacturing plant imported into Angola, while from Portugal alone there was a regular demand for sugar of never less than 35,000 metric tons per annum, which hitherto had been met by supplies drawn from all parts

of the world. Thus the conditions for a vastly increased production could not have been more favourable.

Live-stock and Animal Products.—Many parts of the country, though not the whole province, are suitable for *cattle-breeding*, and there is a certain amount of native experience to guide the intending stock-farmer. A difficulty very generally encountered is to find suitable forage. Many of the grasses growing most luxuriantly and eaten freely by imported animals are so finely and strongly serrated as in course of time to destroy the digestive organs of the cattle. In many localities, however, especially in the damp forests, good wholesome grass is to be had; this is indeed frequently the only forage available after the close of the rainy season, owing to the native practice of burning all the hay on the open grazing grounds. Unfortunately the forest grass is so mixed up with herbaceous plants which the cattle refuse that its usefulness is much restricted.

But the introduction of suitable forage plants should present no insuperable difficulty. Many kinds of beans are indigenous, and are cultivated by the natives. And in the Huilla plateau, a region which has been highly recommended for white colonization in virtue of its climate, the fertility of its soil, and its general agricultural advantages, wheat and many varieties of the pea, vetch, and bean tribe have been acclimatized.

Attempts to introduce the *camel* as a transport animal have failed, chiefly owing to the pernicious effects of the native forage—an unexpected result, seeing that in many parts of the world the camel's habitual food is the foliage and branches of an extremely thorny acacia, which no other animal attempts to eat.

Sheep and *goats* breed very well, especially in the highlands of the Benguella district and near Ambrizette on the coast of the Congo district. But they yield almost no milk or wool. They are, however, remarkably free from disease, will eat any pasture they find, and tend to become fleshy. *Pigs* are very abundant in and around the native villages of Benguella, and have been successfully crossed with

the Portuguese black and the English white pig, the progeny being prolific and attaining considerable weight. Like the sheep and the goat, the pig seems to suffer little from disease of any kind, while horned cattle, and especially horses, suffer severely. *Oxen* and *cows* are very liable to skin diseases (*sarna*) and pleuropneumonia, especially in the coast zone; *horses* are scourged by a variety of epizootic diseases common to the central African uplands. *Mules* imported from Cape Town and from the Cape Verde Archipelago are in great demand, and fetch high prices, but no attempt has been made to breed them locally, though a good resistant type of *donkey* is available, and suitable horses can be imported from the same regions and from Senegambia.

Localities where cattle-breeding has succeeded are Benguella Velha and Novo Redondo, coast regions about 80 or 100 miles south of the Kwanza, and also the Mossamedes district. The tribes inhabiting the former region, unlike the Africans elsewhere, not only own large herds of fine cattle, but milk their cows regularly and drink the milk.

The best markets for surplus live-stock are no doubt San Thomé and Príncipe, South-west Africa, and the far interior of Angola itself. In the last-named region cattle are freely bartered for rubber and ivory. The shipping of the ports can also take considerable quantities, Mossamedes having formerly been a regular port of call for British cruisers in quest of fresh meat. With the development of Lobito this demand is likely to increase when normal conditions are once more established.

Ivory. No recent information regarding this commodity is available, and, in fact, of late years it has ceased to figure in the customs returns. In the time of the trader and explorer Joachim Monteiro, whose work on Angola¹ contains much that is valuable and true to this day, Mokulla, Ambrizette, and Kinsembo were the three centres of the trade in ivory in northern Angola.

¹ *Angola and the River Congo*. London, 1875.

The caravans of negroes, who in their turn were agents for the original hunters in the far interior, used to converge on those coast towns from the Zombo country, which lies astride what is now the frontier-line between Angola and the Belgian Congo. Possibly the formation of the Belgian Congo has had a good deal to do with the cessation of this traffic of late years.

Charles Jeannest, a French trader who spent four years in charge of a factory at Kinsebolhas, has placed it on record¹ that two distinct kinds of ivory used to be brought in for sale—the raw and the dead ivory. The former, of which comparatively little came in, was composed of the tusks of hunted and recently-killed elephants; the latter, forming the bulk of the consignments, was collected from the ‘elephant cemeteries’ up-country. It would appear that the habit of these animals is to form herds and select some forest glade as a habitation, browsing on the available forage as long as any remains available. But the elephant is a large eater, and supplies soon become exhausted. The old and feeble members of the herd do not wander far afield, but die in the vicinity. When the herd moves off in quest of fresh pastures, those unable to keep up with the rest drop out, and their bones strew the route. The tusks when discovered by the blacks used to contribute their share to the collection brought down by the caravans, and as the ivory thus obtained was much harder than that from newly-killed animals it was more sought after. It is curious to note that, notwithstanding its hardness, much of it bore the marks of teeth, a species of squirrel having the habit of nibbling at it. The marks were, of course, superficial, but they were persistent and characteristic of all the dead ivory collected in those regions.

When the tusks were long and heavy—Monteiro records two bought by him which weighed 172 and 174 lb. respectively, evidently from the same animal—the practice was to bring them down slung from a long pole carried by two men. Lighter tusks were encased

¹ *Quatre années au Congo*. Paris, 1886.

in a kind of cage, made of four short sticks inserted in hoops of twisted creeper, so as to keep them in position upon the heads or shoulders of the carriers.

Wax. The greater part of the bees-wax exported from Angola is collected from the nests of wild bees in the southern districts of the province. But farther north, in the hinterland of Novo Redondo and on the banks of the Kwanza, numbers of natives devote themselves to systematic bee-keeping, chiefly for the sake of the honey. They take the wax with it, but also gather a certain limited quantity from nests of wild bees. The latter they discover by watching the movements of a certain kind of bird—described by them as having a white bar across its tail, which they say leads them to the wild bees' nests. But they set more store by the supplies from the domesticated bee. The hives they provide for these are formed by cutting a branch about a foot thick to a length of four or five feet, then splitting it longitudinally, and scooping out the centre, while leaving the ends intact. They then bind the two troughs face to face, and perforate the ends with three holes of the calibre of a man's finger. The hive is completed by cutting in the middle of the cylinder a rectangular hole, big enough to admit the owner's hand. To this hole is fitted a door, which is luted on with clay so as to be watertight. The hive is then slung on the branch of a baobab—the tree generally selected for the purpose—and is thatched over with grass. Once a year, or in some cases oftener, it is visited, the bees are smoked out but not killed, and all the combs extracted except one, which is left to induce the bees to return.

The wax thus obtained is sold, as the natives have no special use for it. But the honey they keep, as it forms the basis of an intoxicating drink, known as *kingunda*, to which they are much addicted.

(b) Forestry.

No systematic conservancy of the timber and other forestal resources of the province has as yet been

attempted, the neglect being doubtless due to the imperfect domination of the interior, where such measures would be of the highest value. That these resources are vast can hardly be doubted. The most important timbers are those which offer the greatest resistance to the inroads of the white ant. Many varieties are heavier than water, notably the mangrove and African ironwood; hence their transport by river or coastwise by sea can best be effected by building them into rafts in combination with a sufficiency of light woods—preferably those having some intrinsic value of their own, such as the fan-palm and the *bimba*. The former, an African variety of *Borassus flabelliformis*, while possessing a pithy core which gives it the desired lightness, has an extremely durable wood; the latter, the *Herminiera elaphroxylon*, resembles the baobab in that its wood is very soft and pithy, but, unlike the baobab, it is found in abundance in the swamps of the coast region, and is in great demand for boat and raft building, as the roughest surf fails to swamp craft of such construction. These rafts, when heavy timber has to be conveyed by sea to the nearest port, are equipped with sails and serve their purpose efficiently.

The useful timbers known to exist in the province include *kusa* (*Parinarium mobola*), the Mobola plum, a hard oak-like timber, suitable for shipbuilding; *mako* (*Burkea africana*), African ironwood, which sinks in water, and is impervious to the white ant; *amoreira* (*Chlorophora excelsa*), an excellent cabinet wood, the product of a lofty tree which contains a latex used by the natives to adulterate their collections of rubber; *ndikasondi* (*Pterocarpus erinaceus*), African or Senegal rosewood, resistant to white ants, and useful in pier and bridge construction; and *nganja* (*Cleistanthus angolensis*, or perhaps *Dalbergia melanoxylon*), African blackwood, also very hard and resistant to white ants.

Quick-growing shade trees exist in abundance, the types of this class being the *ulemba* (*Ficus sycomorus*), and the umbrella-tree (*Musanga smithii*). Some of

the indigenous forest-trees, by virtue of their great height and the absence of lower branches, survive forest fires which destroy smaller trees. The *amoreira* (*Chlorophora excelsa*), already mentioned, and the kapok or silk-cotton tree (*Eriodendron anfractuosum*) are examples of this class.

Such information as is available on the subject of the forests of the province is remarkable for the blanks it contains as to valuable trees and plants which are found and utilized in other West African possessions having a similar soil and climate, and probably also exist, though unreported, in Angola. The *Khaya senegalensis*, a source of African mahogany, is nowhere mentioned, nor is the shea butter-tree (*Butyrospermum parkii*). When the forest regions are effectively occupied, their contents ascertained, and forest reserves created, the province will gain a large accession to its realizable wealth, and also to its annual revenues.

(c) *Land Tenure*

The laws governing grants of lands to European settlers and to concessionnaire companies, whether for agriculture, mining, or railway construction, are contained in a series of decrees issued by the Portuguese Ministry of the Colonies from time to time. A comprehensive scheme for the settlement of the highlands of southern Angola by whites, preferably Jews, was elaborated and published in 1911-12, but as it failed to attract the class for whose benefit it was intended, its terms need not be recapitulated here. The most important decrees at present in force are those of November 11, 1911 (amended by decree of December 3, 1914), and of March 20, 1906, and February 15, 1908.

For many years, Portuguese publicists such as Eduardo da Costa, Oliveira Martins, and others having extensive colonial experience, have endeavoured to dispel the evil tradition that a colony exists merely for the benefit of the mother country, and to reduce to harmlessness the vexatious control of colonial affairs

from Lisbon, based upon that tradition. The advent of the republic gave the reformers their opportunity, and in Angola they found a favourable field for testing their faith in local self-government conceived in the interests of the man on the spot, be he white or black. Unlike certain other overseas possessions—San Thomé and Príncipe for example—Angola had no powerful vested interests barring the way; it was not penetrated, like Portuguese East Africa, by foreign influences exercised by great concessionnaire and chartered companies; and it was not peopled by an unruly congeries of native tribes such as those of Guinea, whose hostility to the white man is thinly veiled, and constitutes a perpetual menace.

The practical application of the new idea to Angola took the form of regarding the province as composed, roughly, of two more or less distinct regions—the *plan alto* or uplands, suitable to European occupation and European outdoor labour, and the coast belt and tropical interior to the north and north-east of the Kwanza basin, which was not in the same sense a white man's country. The distinction, of course, was not a hard and fast one; the highlands possessed their aboriginal native population, and the tropical coast and interior tracts had, to a certain extent, become planting centres for the development of which coloured labour was indispensable. In both cases the conflicting rights of whites and blacks had to be adjusted by some workable form of compromise. But this did not discourage the reforming jurists and administrators. They saw that many data for the adjustment were wanting, and the outcome of their deliberations was the establishment of the Department for Native Affairs, whose handling of the labour question has already been reviewed (see p. 41).

Early in the career of this department there appeared a *portaria* or notification by the Governor-General of the province (Senhor Norton de Matos), dated January 30, 1914, and entitled 'Provisional Regime for the Grant of State Lands in Angola'. This

regulation deals ably and exhaustively with at least one important aspect of the problem. After reserving similar powers to the Central Government in Lisbon, it affirms the competence of the Governor-General in Council to declare certain areas of the province to be reserved exclusively for native occupation. This occupation, it is laid down, shall not carry with it ownership rights over the land occupied. Outside those areas, certain villages are enumerated in which the native may exercise similar rights of occupancy. The regulation goes on to define the conditions on which this form of squatter's tenure may be established and confirmed, viz. by deed in writing ; occupation to be proved by actual residence, habitual cultivation, or by pasture on the land ; and the grant to be limited to 2 hectares (5 acres) per adult member of the native family, or 400 square metres in the case of village lands outside the native reservation. Within the reservation the native family shall be deemed to include, not merely its head and his wives, but also his minor children and his aged or infirm parents if residing with him, each of these being entitled to the allowance of 2 hectares.

Certain local functionaries are empowered to increase or decrease the extent of any such holding included within their jurisdiction, in accordance with the growth or diminution of the native family, provided, however, that no reduction need be made should the head of a diminished family desire to continue in occupation of the original holding and be in a position to utilize it. The competent functionary may double the extent of the holding if it is being used as pasture land.

Twenty years of continuous occupation under these conditions, reckoned from the date of the deed of grant, provided that at least one-third of the land has been under cultivation, shall *ipso facto* convert the squatter's tenure into one of absolute ownership. But until this takes place, no squatter shall exchange, alienate, mortgage, or lease out the land held by him ; nor shall that land be subject to attachment or foreclosure. Any

disposition to this effect shall be null and void, and registrars are authorized to refuse registration of any document purporting to create an obligation of this nature. The notary who may draft any such document shall be struck off the rolls, and be further liable to civil law for any loss or damage arising out of the transaction or its cancellation.

The restrictive provisions which follow are not unreasonable. A native holder absenting himself with all his family, or failing, for any period exceeding a year, to utilize the land for the purpose for which it was granted, shall forfeit his occupancy rights, the further disposal of the land resting with the State. He is also bound to notify to the competent authority any absence of the kind exceeding 180 days, subject to a fine of 5 *escudos* (about £1) for the first omission, or 10 *escudos* for any subsequent one.

If the holder die before his tenure has matured into ownership, his rights in it shall pass to his heir according to the native law of succession (i. e. to his sister's son or other descendant in the female line), provided the heir is able and willing to utilize the land or reside on it. Otherwise rights in it shall lapse to the State.

Native lands held on squatter's tenure which may be found to be included in the limits of any concession applied for, may be transferred to the intending concessionnaire only under the express authority of the Governor-General, and then only after payment to the squatter of the value of his tenant-right and of improvements,

The squatter who has acquired ownership rights as above is exempt from compulsory military or police service, from forced labour, and from impressment as a sailor, boatman, porter, or scout; but not from the duty of attendance on the civil or military head of the district, should he be required in time of war or military operations for the restoration of public order.

Provision is further made for the demarcation of the holdings, and their registration, with full particulars of all the occupants. The regulation concludes with a

series of directions to the functionaries concerned in its execution. They are, for instance, expressly forbidden to exact or receive any sum in money or money's worth for official services rendered. All such services are gratuitous, though of course the holder must pay for the stones or pillars set up to mark the boundaries of his land.

(3) FISHERIES

The whole of the Angola seaboard abounds in fish. Ambriz and Loanda are well provided for in this respect, and, farther south, Benguella, Mossamedes, and Porto Alexandre are so specially favoured that both fish-curing and whaling have become established industries. Fish-curing is mainly in Portuguese hands, native labour being largely employed; whaling is almost exclusively a foreign enterprise, under Norwegian, Dutch, and American control.

It is stated that south of the Congo there is practically no danger from sharks; but at Loanda a fish of the shark species is often caught by the natives. Its flesh, which is valued as an article of food, is dried and cured in considerable quantities. Another large fish, the *pungo*, sometimes over 100 lb. in weight, is found in the same waters; it has very large flat scales and is not attractive in appearance, but the flesh is neither coarse nor unpalatable. It has a curious habit of pressing its snout against the side of a ship or boat at anchor and producing a loud drumming sound, described as not unlike a deep tremolo note on an organ. So persistent is this noise that boatmen complain that they cannot sleep at night where this fish is present, and they try to drive it off by splashing the water with their oars. It is a migratory fish, appearing on the coast between June and August. The Portuguese have recognized its value as food, and make its flesh an article of export, salting it and packing it in barrels for shipment to San Thomé and other markets.

Another fish of a certain commercial value is the *cassão*, a kind of dogfish frequenting the waters of the southern coast (Benguella to Mossamedes) at certain seasons of the year. A boat's crew of two or three blacks can generally count upon taking in a night's work 60 or 70 of these fish, and, if specially lucky, may catch as many as 300. The livers of the fish are boiled and the oil extracted for the purpose, chiefly, of adulterating whale and other fish oils. About 300 livers will yield a quarter cask of oil.

Of smaller fish, forming the food of both Europeans and natives, there is abundance everywhere. The phenomenon repeatedly observed at Dakar, and at Lanzarote and elsewhere in the Canaries, occurs not infrequently on these coasts; at times the mouths of the bays and the channels between islands and the mainland seem to be blocked by a seething mass of fish pressing shoreward. This is an incident of common occurrence near Ambriz, and also on the Mossamedes coast, where as many as eight tons of fish have been taken at a single throw of the seine net.

The Norwegian and American whalers who have undertaken to fish the coasts of southern Angola are stated to be doing so well that factories for extraction of the oil have been established by them on shore at different points, whereas formerly the work was done on board depot ships. In 1913 the exported products of this industry are stated by the British Consul-General to have fallen off somewhat, owing possibly to unrestrained slaughter of whales in the years preceding. But the figures given, if the earlier years of the industry be taken into account, go to show progress on the whole, despite fluctuations. Neither the consular figures nor those of the official *Anuario Colonial*, read alone, give a complete and conclusive idea of the trade, one set quoting quantities without values, the other the reverse. Inferentially, however, something can be made of them by collating the information they give, and a careful scrutiny would appear to warrant the figures shown in the following table, which, incom-

plete as it is, conveys the general impression of a progressive industry:

		Quantities.	Values.
		Kg.	£
1910.	Whale oil alone . . .	2,160,000	25,920
1911.	All whale products . . .	(not stated)	93,846
1912.	„ „ . . .	„	158,652
1913.	„ „ . . .	„	145,940
1914.	„ „ . . .	12,716,791	(not stated)
„	Whale oil alone . . .	9,786,433	„

(4) MINERALS

The mineral wealth of the province, hitherto for the most part unexploited, consists, as far as is known, of malachite and other copper ores, iron, gold, sulphur, gypsum, petroleum, and salt.

Copper ores.—*Malachite* is to be found in the vicinity of Bembe, in the interior of the Congo district, to the south of San Salvador do Congo. A valley separates the Bembe table-land from the high flat country to the north and east, and through this valley a stream has cut its way, exposing the clay slate of the table-land in a perpendicular wall on one side, the opposite bank being a gentle slope, throughout which irregular patches of malachite occur. The discovery of deposits is also reported from lower down the Brije river on which Bembe stands, and also on the Kuvo, about 25 miles from its mouth. The malachite is often found in solid blocks; Joachim Monteiro¹ describes three of these which together weighed a little over three tons. But, he adds, it generally occurs in flat veins without any definite dip or order, sometimes over two feet thick, and much fissured from admixture with dark oxide of iron, and sometimes cemented by the latter to the ferruginous clay containing it.

In the forties and fifties of last century, during a period of fifteen years, from 200 to 300 tons annually used to be brought down to Ambriz for sale by natives

¹ *Angola and the River Congo*, i. 190.

of the interior. This fact drew the attention of capitalists to its possibilities, and an English company, the Western Africa Malachite Copper Mining Company, took up a concession in the Bembe valley. This company was badly served by the men it sent out, and failed to make a thorough exploration of the deposits, though several of the shafts, sunk by them to a depth of 36 to 48 ft., showed very encouraging prospects and revealed, in most cases, a bottom of pure malachite. As no malachite was found in the clay-slate rock, it was concluded that the deposit was water-borne. About 1859 the company abandoned the mine, ascribing the failure of its operations to the loss of many of the Cornish miners employed—a loss due more to ignorance of tropical conditions and neglect of personal hygiene than to the direct influence of the climate. The natives then resumed the working of the ore, and made it pay them, though they too, by mining it in their own primitive and dangerous fashion, lost many of their number, buried alive through neglect of precautions.

A few years later, copper ore was found in the Benguella district, at Kwio ($13^{\circ} 6'$ south latitude), about nine miles south of Dombe Grande. This ore was a deposit at the bottom of a small circular valley or depression in gneiss rock, evidently brought there by the action of water. Monteiro extracted about 1,000 tons of good ore from this bed, and considerably more from another bed higher up the River Kopororo, in which traces of silver also appeared, amounting occasionally to 100 ounces in the ton. In one place the same explorer reports having found a few tons of lead ore.

The only copper discovered by Monteiro *in situ* was inland from Mossamedes, where the schistose rock changes to a quartzose granite, and in places to a fine-grained porphyry; in these are found quartzose veins with small strings or lodes of sulphide of copper, very rich, but in quantity too scanty to repay the labour of extraction. In the interior of Lunda also there must be a certain amount of copper ore, as the caravans bring

down blocks of copper, curiously shaped like the letter X, and said to be smelted by the natives of that region.

Gold.—Two auriferous deposits were discovered about twenty years ago, one in Golungo Alto, the other in Bailundo. The former, on the banks of the River Lombiye, is merely alluvial, and has not proved remunerative to any of the companies which from time to time have attempted the working of it. In the Kassinga district of Mossamedes, about 1902, gold-bearing sands and some veins of gold in quartz were discovered on the banks of the Shitanda, and companies were formed to work the find. No record of results is available, and these companies do not now appear in the lists. In the interior of Benguella, in regions now being opened up by the Benguella Railway, gold has been discovered, chiefly in the streams rising in the Serra Andrade Corvo, and in the Huambo country. It is hoped that the construction of a line from Porto Alexandre to Humbe will open up some further regions where gold is believed to exist.

Gypsum is found in considerable quantities, along with a certain amount of sulphur, at Morro das Langostas, on the coast a few miles north of Loanda. On the road from Dombe Grande to Kwio, deep perpendicular ravines show an extensive surface of gypsum rock, which can be made into excellent plaster of Paris by processes so simple that no skilled labour is necessary. In other parts of Benguella it is reported to be equally abundant.

Iron has been found in the valley of the Lukalla, one of the tributaries of the Kwanza, and also in much larger quantities in Bailundo. In the former region, at Oeiras, smelting works were erected, but had to be abandoned owing to the unhealthiness of the climate.

Petroleum.—In Dande, on the slopes of Lilongo, and at Kitatua and Kabangana, petroleum is found in the form of bitumen, formerly used for caulking the seams of boats. It used to be brought in by the natives of that region in payment of taxes. Another fairly

important deposit is at Quizao, in the Congo district, where for many years it was made fetish by the natives in order to conceal its existence from Europeans. The point at Musserra is composed of sandstone, from the lower beds of which pitch oozes out in the hot season.

Salt is extensively worked on the coast between Kinsembo (Quissembo) and Ambrizette, particularly in the vicinity of the latter, where there are innumerable salt marshes. At the end of the dry season, the native women and children who devote themselves to this occupation divide the surface of the marshes into little square plots enclosed within mud walls a few inches in height and each containing about two or three gallons of brine. The marsh water evaporates under the sun and deposits its salt on the mud of the floor. When possible, it is supplemented by cutting small channels so as to admit sea-water at high tide. From these pans baskets are filled. The salt, which is very muddy, is purified by pouring sea-water over it till all the mud disappears, leaving the salt crystals white and shining. Towards evening the workers carry their loaded baskets home to the town. Each worker is independent of her neighbour, her claim being marked out by fetish-sticks erected at the corners. This industry has a by-product in the numerous small fish captured incidentally within the enclosures and subsequently cured in the sun and sold to natives returning to the interior.

In 1914-15 similar salt-pans were first worked between Lobito and Katumbella, and, as those places are on the railway to the interior, the industry has a fair future before it, salt being scarce and in great demand up-country.

Sulphur occurs in considerable quantities in the gypsum hills of Dombe Grande, and the cliffs by the River Giraul, near Mossamedes, are frequently covered with an abundant efflorescence of almost pure sulphate of magnesia.

(5) MANUFACTURES

The chief manufactures of the province are fish-curing (mainly in southern Angola), sugar-making (at Novo Redondo and elsewhere in the central coast region), soap-boiling (at Loanda), and the preliminary treatment of rubber, as far as possible by the methods employed on the Ceylon and Malay plantations.

A *sugar-producing* enterprise was started at Novo Redondo about 1910 by a planter, Mr. V. P. Leiro, who had some 1,200 acres of his estate under cane and desired to use up-to-date methods. The installation was supplied by the Compagnie de Fives-Lille, France, with the exception of the granulating machinery, obtained from Messrs. Watson, Laidlaw & Co., of Glasgow. The maximum output of the factory is 6,000 tons of sugar per annum, but in 1913 the produce available was only sufficient to yield 2,000 tons; the owner expected, however, to succeed within four or five years in raising the output to the factory's full capacity. For the supply of electric power he has constructed a dam about two miles farther up-stream, where he is erecting turbines and accessory machinery.

A mill capable of handling 7,000 tons of cane per annum is reported to have been erected in 1914 at Kassekel, eight miles from Lobito, by the Sociedade Agricola de Cassequel. In the following year machinery capable of treating 3,000 tons of cane per annum was erected at Katumbella in the same region, but as this enterprise was of German origin, and all Germans were then compelled to leave the province, the factory has suffered from lack of a competent technical staff for planting and manufacturing.

The *soap-making* and *rubber-cleaning* industries are as yet in their infancy in the province. In 1913 an oil and soap factory was being erected at Loanda by a Hull firm of contractors for the production of a high-class soap in addition to the common soap previously manufactured there. Rubber-cleaning machinery has been introduced by an Englishman settled at Bihé on

the Benguella Railway, and an English company (the Valour Rubber Extracting Machine Company, Ltd.) is pushing its machinery in the province.

(6) POWER

Besides Mr. V. P. Leiro's installation at Novo Redondo mentioned above, the Benguella Railway Company has effected an agreement with the Lobito, Benguella, and Katumbella Electric Light and Power Company, Ltd. (practically an English enterprise), for the lighting of its wharves, stations, offices, and warehouses. The latter company has a concession for ninety-nine years dating from 1906, under which it has already provided for the lighting of the three towns from which it takes its name. It is stated that power for the main generating station will eventually be obtained from the Katumbella river, where dam works were in course of construction;¹ but for present use two Garrett superheated steam-engines, each of 160 horse-power, have been installed on a siding of the railway. The whole of the street lighting is said to be complete, and the company further expects a good return from electric fans and other cooling plant, also from electric pumps for irrigation works and for house water-supply.

This undertaking is but a single instance of the possibilities of Angola, here developed, but elsewhere, for the most part, allowed to remain dormant. Costa Serrao, writing on the agriculture and manufactures of Angola, urges the immediate utilization of the falls of the Dande, Lukalla, and Kwanza rivers, which, he states, are capable of producing 30,000, 34,000, and 257,000 horse-power respectively. These three sources, supplemented by an irrigation scheme calculated to create an energy of 80,000 horse-power, would, if employed for the production of electric power, yield an annual gross return of £500,000, and would serve to convert the district into a fabulously rich centre of production.

¹ See *The African World* of February 7, 1914.

(C) COMMERCE

(1) DOMESTIC

Germany, followed in recent years by Italy, has announced the discovery that the province of Angola, subject to certain tariff modifications and a general modernization of official methods of procedure, is capable of becoming an excellent market for European trade. This belief had been translated into practice by Germany some years before the war, but Italy had not advanced beyond the stage of prospecting when both countries had to break off their trade operations.

(a) Principal Branches of Trade

Textiles, mostly of the cheaper grades manufactured to meet native demands, are the leading import of the colony, and therefore the chief commodity of its domestic trade. The tariff of the province is designed to protect Portuguese goods of this description, but has failed to do so completely, owing to the inferiority of the Portuguese article compared with that made elsewhere in Europe for the same class of customer. Next in order come canned goods, groceries, wine, beer and spirits, machinery, hardware and cutlery, clocks, watches and cheap jewellery, haberdashery, boots and shoes, and cement.

(b) Towns, Markets, &c.

Loanda, the capital of the province, has hitherto been the most important market for imports, though its pre-eminence is challenged by *Lobito*, with its excellent harbour and railway communications. Now, however, that Government has taken over the existing line of the *Companhia do Caminho de Ferro através de Africa*, which never penetrated beyond *Lukalla*, and proposes to carry forward its extension, the *Malange* line, into the district of *Lunda* as far as the frontiers of the Belgian Congo, it is possible that *Loanda* may

retain, or regain, its former ascendancy. *Benguella* used to do a large trade, but the town of Lobito, which is bound to grow in size and importance, has already made serious inroads upon local commerce, not only at Benguella but also at *Katumbella*, which from a considerable exchange centre in earlier days, is now reduced to a village subordinate to Lobito. It is to this district, and especially to its upland interior, that Italian attention has been specially drawn. The latter regions enjoy a climate suited to European colonization and manual labour, and at the same time possess a large native population, which is not the case with the corresponding regions inland from Loanda.

Farther south, *Mossamedes* and its upland interior (Huilla district) are also suitable for development, with the added advantage that even the coast belt may be regarded as a white man's country. It is a matter of common observation that the up-country stores are very deficient in what is known as 'Kaffir truck' goods, such articles as form their stock-in-trade being both inferior and devoid of variety. This region used to be worked specially by German traders, owing to its proximity to South-west Africa and to the ulterior political aims of their nation in respect of southern Angola. It should offer the most promising field for British and South African commercial enterprise after the war.

Mention must also be made of the ports and towns of the Congo district and the Cabinda enclave. Down to the outbreak of war, these used to do a considerable export trade, conducted almost entirely by barter against European manufactured articles. *Ambriz*, *Ambrizette*, and *Santo Antonio* are still active, as they retain some share in the coasting service of the *Companhia Nacional de Navegação*. From *Cabinda* and *Landana* complaints are loud and persistent, as for two years no vessel has called at either to take the produce accumulating on the wharves. All these ports are without interior railway communication, but as the region to the east of the three Congo ports

is very rich, and as the hinterland of the Cabinda enclave, rich also, is likely to be opened up by rail, their import trade may be expected to increase with the creation of new markets for goods in the French and Belgian interior. Even as it is, their water-borne trade is important. Landana is a valuable commercial centre. Stores of influential firms have been established along the Shiloango river, some of these, by agreement with the Belgian Government, being set up on the left bank in Belgian territory; the produce bought or acquired by barter is brought down to Landana for shipment. The imports into the Landana district are cotton goods, woollens, hosiery, blankets, quilts, jute carpets and rugs, jute bags, hardware, earthenware, palm-oil casks, lime, tar, cement, and provisions. For all these there is a ready market.

(c) *Organizations to promote Trade and Commerce*

As far as Portuguese West Africa is concerned, the most important of these are to be found in Lisbon, the only bodies in Angola dealing directly with trade questions being the Chambers of Commerce at Loanda, Benguella, and Mossamedes. In Lisbon there are the Agencia Colonial, Ltda., the Centro Colonial, the Comerciantes de Angola Residentes na Metropole, the Comerciantes de Angola, the Junta da Defeza dos Direitos d'Africa, and the União Colonial Portuguesa.

Of these the Agencia Colonial is the most active. This is a purely business undertaking, and deals with colonial trade in sections corresponding to the individual provinces. It still publishes a monthly journal, the *Revista Colonial*, which used to be a valuable organ in the days when Dr. Souza Ribeiro was at the head of affairs (up to 1914).

The Centro Colonial retains only a limited connexion with Angola, having deputed its daughter organization, the Sociedade de Emigração para San Thomé e Príncipe, to undertake the principal part of the business (labour

recruiting) which brought it into relationship with the mainland colony. It now concerns itself almost exclusively with the affairs of the cocoa islands. The *Commerciantes de Angola Residentes na Metropole* and the *Commerciantes de Angola* are reputable associations, doing useful work in Lisbon in the interests of the colonial mercantile community. The *Junta da Defeza dos Direitos d'Africa* is a small group composed mainly of negroes from San Thomé and Principe. It has branches in both islands, but does not appear to have much support in Angola. The *União Colonial Portuguesa* is also a semi-political organization ; its membership is small.

(d) *British Interests*

In the capital of the province British interests are represented by a single business house, the Angola Coaling Co., which exists only in virtue of the exemption of coal from the general protective tariff. A British consul-general is stationed here, and under him are a vice-consul at Lobito and an honorary vice-consul at Benguella. At the two last-named places, and at Katumbella, there are two companies registered as Portuguese, with capital mainly British, the Lobito, Benguella, and Katumbella Electric Light and Power Co., and the Benguella Railway Co.

(e) *Methods of Economic Penetration*

Down to 1916, when Germany declared war upon Portugal, German interests were represented at Loanda by a consul, assisted by an honorary vice-consul ; at Benguella by an honorary consul who was at the same time consul for Belgium ; and at Mossamedes by an honorary consul who was head of the commercial house of G. Schöss & Co., of Mossamedes and Humpata. Germany's traders and consuls had from time to time been reinforced by pseudo-scientific explorers, notably the German engineer, Schubert, and Dr. Schatzabel, who declared himself to be an ethnographer. On the

spot, these German agents made no concealment of their national intention of dealing with Angola as a sphere of influence for German trade.

(2) FOREIGN

(a) *Exports*

In the years immediately before the war the exports from Angola showed a marked tendency to diminish. Thus while in 1910 their total value was nearly 8,500,000 *escudos*, it had fallen below 6,000,000 in 1911. In 1912 it rose to nearly 7,000,000 *escudos*, but in 1913 it was only 5,600,000 *escudos*, and in 1914 5,200,000 *escudos*.

Of the principal article of export, *rubber*, there has been a steady decrease in quantity and a very considerable decrease in value. On the other hand, in the case of *coffee*, the next most important commodity, in the years 1910 to 1912 the quantity exported declined, but the value rose not only relatively but actually; in 1913, however, there was an increase in the quantity and a fall in price. Of the goods exported in smaller quantities, *wax* has shown a consistent slight increase and a steady price, and *sugar* a very considerable increase since 1911; *palm kernels* have fluctuated within well-defined limits. Certain articles, e.g. raw cotton, ivory, and whale oil, appear to have been exported in some years and not in others, but it is possible that in the years for which no figures are given for these commodities they are included among the unspecified articles (see Appendix, Table II).¹

¹ The figures given in the Appendix are reproduced, and to a certain extent rearranged, from the statistics given in the *Anuario Colonial* of 1916. As will be seen, those relating to unspecified commodities are a matter of inference, if not of conjecture, from the differences between total exports and the totals of the lists of principal exports. But none of the tables can be relied upon as rigorously correct, for even obvious errors abound; in one of the years reviewed the total of the specified goods, which constitute only a part of the exports, exceeds the total of all the exports. The *Anuario Colonial* gives no detailed information as to the destination of exports.

(b) Imports

There are no details available in respect of specific classes of goods imported into Angola. These goods, however, are such as are normally supplied to African colonial countries, i.e. cotton piece goods, railway and building materials, and articles of general necessity. The total values¹ of the imports for the years 1910-14 are given in the Appendix (Table III).

(c) Customs and Tariffs

The existing organization of the Customs services dates from October 25, 1899, when a decree of the Colonial Ministry created two separate circles for Angola and San Thomé, each subject to the Government of its own province. In Angola there are three distinct tariffs in force, one for Loanda, Benguella, and Mossamedes, another for Ambriz, and a third for the Congo. The first-named is the rigidly protectionist tariff of 1892 with a few subsequent modifications, the most important of which relate to duties on alcohol and sugar; the second and third are more generous to foreign traders, who, however, do not appear, in recent years at least, to have been attracted in any large numbers.

(i) *The Loanda-Benguella-Mossamedes Tariff.*—The commodities in respect of which foreign competition seems to be most feared, judging from the duties payable upon them, are alcohol in the form of brandy or whisky, which is charged from 3 to 4 *escudos* per decalitre (2·2 gallons); footwear for Europeans,

¹ The totals given in the *Anuario Colonial* do not agree with those in the only British Consular Reports (1913 and 1914) which contain figured statements of imports. The discrepancy may possibly be due to the inclusion in the former of figures for the coasting trade between Angola ports, and their exclusion from the latter; or, more probably, though nominally covering the total trade, the consular figures may relate only to the general (foreign) trade of the country exclusive of that with the mother country. There is no trustworthy information as to countries of origin.

which pays 1 *escudo* per kg.; and textiles, paying 25 cents to 2.50 *escudos* per kg. according to the proportion of cotton, wool, or silk they contain. Unspecified goods pay 25 per cent. *ad valorem*.

(ii) *The Ambriz Tariff*.—The history of this scale of duties is interesting for its bearing upon the dominant fiscal theory of exclusive tariffs designed to foster a trade purely Portuguese. Joachim Monteiro, whose writings show him to have been emancipated from the prevailing traditions, narrates that up to the year 1855, when the Portuguese first occupied Ambriz, the River Loge, upon which it stands, marked the northern boundary of Portuguese Angola, the country beyond, nominally the kingdom of Congo, being in the hands of natives who ruled it according to their own laws, and owed no allegiance to any white authority. American and British traders had established themselves at the town, and used to buy gum copal, malachite, and ivory, or acquire these in barter for Manchester goods and other wares.

The Portuguese signalized their assumption of sovereignty at Ambriz by setting up a custom-house and imposing high duties on all goods imported. The foreign houses at once removed to Kinsembo, six miles off, on the other side of the river, and thenceforward for many years the duties levied at Ambriz barely sufficed to pay the totally inadequate salaries of the custom-house officials. When Monteiro established himself in trade at Ambriz he persuaded the Governor-General of Angola, in the teeth of violent opposition on the part of the petty merchants and functionaries of Loanda, to reduce the duties leviable at Ambriz to 6 per cent. *ad valorem* on all imports, so as to enable the remaining factories of that town to compete with those of Kinsembo, which was a free port except for certain small annual payments, amounting to a few pounds in value, made to the native chiefs in the form of gifts of cloth, &c. The result was eminently satisfactory, and the bulk of the trade which had left Ambriz with the exception of that in ivory, returned to its

former market.¹ Moreover, the duties on the reduced scale yielded so considerable a revenue that a surplus amounting to one-third of the whole could be, and was, devoted to public works—among others to the construction of the only iron pier which Angola possessed for many years.

The Ambriz tariff remains moderate to this day, though it has undergone some modification since the period to which Monteiro's story relates. Arms, ammunition, gunpowder, small wares, and salt pay 10 per cent. *ad valorem*; foreign sailing or steam vessels, of over 200 cubic metres capacity, pay 12 per cent. *ad valorem*; wines, spirits, and liqueurs pay on the scale of the Loanda tariff; and other notable items are a 10 per cent. duty on watches, and a 25 per cent. duty on clocks, as at Loanda.

(iii) *The Congo Tariff*.—The tariff for the Congo district remains reasonable, the 6 per cent. *ad valorem* rate being retained for most imports, the exceptions taxed more highly being the same as for Ambriz. Alcohol has a special regime, conformably with Art. 92 of the Minutes of the Conference at Brussels.

(d) *Commercial Treaties*

The Anglo-Portuguese Treaty of Navigation and Commerce (1914, ratified 1916) has not yet been extended to the Portuguese overseas possessions.

(D) FINANCE

(1) *Public Finance*

Budget Estimates.—The Provincial Budget Estimates for 1916–17 are given in Table IV of the Appendix, along with a comparative statement of the total revenue for the three years immediately preceding (1912–13 to 1914–15). The latter shows the annually recurring differences between estimated and actual receipts; the fluctuations in expenditure for those years are also

¹ *Angola and the River Congo*, i. 153–4.

recorded, with the aggregate deficit for the same period, insufficiency of revenue being a persistent characteristic of the finance of the province. Under the same table are shown the method employed for meeting the deficit for the triennium in question, and also the final adjustments for the twenty-five years preceding (1889 to 1913), from which it appears that an expedient which might be admissible to meet a temporary case of urgency has been allowed to develop into an established financial practice.

In the statement of revenue and expenditure several items call for explanation. 'Compensation from expenditure' (*compensações de despesas*) means the sums recovered incidentally from an item of outlay not susceptible of estimate in advance. These would include, for instance, the sale proceeds of materials from a building dismantled or a plantation felled for public reasons, such as to make way for a road or railway, or to admit of reconstruction on a different plan. On the side of expenditure the term 'closed accounts' (*exercícios findos*) means unadjusted items not discharged in the year for which their payment was estimated, and therefore brought over in the accounts of a subsequent year. A notable instance of the kind is to be found in the excess expenditure shown in 1913-14 over that of the year immediately preceding. In this case a large number of charges upon public funds could not be met when due for payment, owing to non-receipt of the annual grant-in-aid required to maintain the solvency of the colony. Hence settlement of these had to be postponed till the money arrived from Lisbon. Again, the term 'extraordinary expenditure' covers certain major heads of outlay, such as hygiene, sanitation, and poor-law administration, road-making and public works, military expenditure, and miscellaneous expenditure not otherwise provided for. The use of such a patently elastic expression is open to serious objection from the point of view of the auditor. Thus the information given by the *Anuario Colonial* (1916) regarding the pro-

gramme of road-making and public works is instructive. The total sum assigned for the public works of the six districts of the province was 151,000 *escudos*, but the sum actually expended was 109,583 *escudos*. The balance of 41,417 *escudos* is claimed as an economy, which, it is admitted, has been effected only by deferring the appointment of men required to fill existing vacancies on the sanctioned establishment, and consequently by rendering impossible of execution a number of more or less important items on the sanctioned programme.

The practice of adjusting the deficits of one colony by transferring to it the surpluses earned in another seems open to grave objection. Such appropriations deprive the colony whose budget shows the surplus of the incentive to further improvement which would result from the free control and disposal of funds which really belong to it, and on the other hand they tend to pauperize the backward colony by fostering a habit of dependence upon doles which it has done nothing to earn, instead of stimulating it to raise its own administrative standards and fiscal methods to the level of its more successful sister-colony. As is evident, Angola does not even pay its way, but nevertheless relies for revenue almost exclusively upon a protective tariff which, though it yields a certain income, at the same time drives away those who might become its best customers, and whose trade, if encouraged, would considerably raise the wealth and revenues of the province.

Taxation.—Direct taxation exists in Angola only in the form of a hut tax (*imposto de cubata*) levied exclusively upon the natives. Hitherto its assessment appears to have been more or less arbitrary, and in earlier times was accompanied by much corruption and extortion. Such native risings as have from time to time taken place in the colony have generally been caused by this tax or by the manner of its collection. This matter is one of the subjects now being studied by the Department of Native Affairs charged with the census of the people and the codification of native customary law.

The expenditure which in a British possession of a similar order, with a fairly large and for the most part prosperous European agricultural community, would be met by income-tax, succession duty, and possibly a trade and profession tax, here has to be met almost entirely from the proceeds of the duty on imports and exports. It is true that certain licence taxes are levied: for big game hunting a resident's ordinary licence costs 15 *escudos* per annum, a special licence 25 *escudos* while non-residents pay twice these rates; ordinary prospecting licences cost 5 *escudos*, and special licences 50 *escudos*, the latter entitling the prospector to declare a much higher number of claims. Similar fees are charged for the demarcation of grants and concessions of lands; but as all are, properly speaking, payments for definite rights or privileges, they are hardly of the nature of taxation in the general revenue sense of the term.

(2) *Currency*

The currency of Angola is that of Portugal, and the standard coin is the *escudo* or Portuguese silver dollar, at present (1918) worth about 2s. 6d., but in theory still reckoned at its former par value of two-ninths of a pound sterling (4s. 5½d.)—a rate not attained since the close of last century. Both at home and in the colonies, the currency is mostly paper, and in the case of Angola the medium is notes of the Banco Nacional Ultramarino at Loanda, which, under a monopoly embodied in its charter, is the sole bank of issue. These notes circulate at face value within the limits of the colony where issued, but are not current save at a discount in the other colonies, nor in Portugal itself.

(3) *Banking*

The Banco Nacional Ultramarino still retains its rights of issue to the exclusion of all other institutions, but the whole system of colonial banking has been under revision for some years, and a new colonial bank, the Banco Colonial Portuguez, has recently (1918)

been chartered and empowered to do ordinary banking business, to make advances on mortgage, and to perform the usual credit operations, including the discounting of mercantile paper and negotiable instruments generally. Its intention is to establish branches in Angola and elsewhere in the Portuguese overseas possessions, but definite information as to the present stage of its development is not yet to hand.

(4) *Influence of Foreign Capital*

In addition to the British interests mentioned on p. 77, it may be noted that a concession, largely French, has existed since 1894 in the Mossamedes district of southern Angola, the Companhia de Mossâmedes. Its original capital, increased in 1901, was 2,250,000 *escudos*, then taken as equivalent to 13,750,000 francs (£550,000), but, at present exchange, worth only 7,300,000 francs, or £280,000. Its head offices are in Lisbon, with a branch committee in Paris and an agency in London.

(5) *Possible Fields for Investment*

In northern Angola, mineral resources may repay further investigations ; but available information is scanty. The same is true of the timber resources of the province. Openings for trade seem to offer themselves in the Mossamedes and Huilla districts, and in the Congo district, including the Cabinda enclave : it is believed that the authorities of French Equatorial Africa and the Belgian Congo have under consideration schemes of railway development embracing extensions into Cabinda.

On the whole, agricultural enterprise, notably in the cultivation on a large scale of the ground-nut, the coconut, and the oil-palm, seems to offer the fairest field for the investment of capital.

TABLE

OCEAN-GOING SHIPPING: ENTRIES

Year and Flag.	Loanda.			Lobito.			Benguella.		
	Vessels.			Vessels.			Vessels.		
	Sail.	Steam.	Tonnage.	Sail.	Steam.	Tonnage.	Sail.	Steam.	Tonnage.
1909									
Entered :									
Portuguese . .	6	75	189,994	72	177,367		71		108,931
British . . .		18	35,310	15	42,421				
German . . .		12	22,088	10	21,179		12		21,333
Other Nation- alities	1	15	4,387						
Total entered .	7	120	251,779	97	240,967		83		130,264
1911									
Entered :									
Portuguese . .	3	80	192,517	65	180,240		1	51	122,062
British . . .		26	42,270	16	58,032				
German . . .		13	31,221	5	13,710		13		34,116
Other Nation- alities	1	28	6,622	1	2	1,861		6	4,870
Total entered .	4	147	272,630	1	88	253,843		170	161,048
1913									
Entered :									
Portuguese . .		85	210,919	71	180,128		59		134,133
British . . .		5	6,987	19	69,260				
German . . .		17	50,962	9	31,094		13		44,923
Other Nation- alities	2	49	11,688				3	26	10,941
Total entered	2	156	280,556	99	280,482		3	98	189,997

I

AT ANGOLA PORTS, 1909, 1911, and 1913

<i>Mossamedes.</i>			<i>Ambriz.</i>			<i>Total.</i>		
<i>Vessels.</i>			<i>Vessels.</i>			<i>Vessels.</i>		
<i>Sail.</i>	<i>Steam.</i>	<i>Tonnage.</i>	<i>Sail.</i>	<i>Steam.</i>	<i>Tonnage.</i>	<i>Sail.</i>	<i>Steam.</i>	<i>Tonnage.</i>
1	36	75,380	57	92,532	7	311	644,204	
	3	2,475				36	80,206	
	16	26,776	6	9,996		56	101,374	
	18	287				1	33	4,674
—	—	—	—	—	—	—	—	—
1	73	104,918	63	102,528	8	436	830,458	
1	45	105,539	50	96,935	5	291	697,293	
	3	3,594				45	103,896	
	12	29,472	7	15,010		50	123,529	
2	6	8,534				4	42	21,487
—	—	—	—	—	—	—	—	—
3	66	147,139	57	111,945	9	428	946,205	
	38	84,288	46	101,044		299	710,512	
	7	5,218				31	81,465	
	16	55,842	2	7,044		57	189,865	
1	20	10,857				6	95	33,486
—	—	—	—	—	—	—	—	—
1	81	156,205	48	108,088	6	482	1,015,328	

TABLE III
IMPORTS INTO ANGOLA,¹ 1910-14

<i>Year.</i>					<i>Value. Escudos.</i>	<i>Duties. Escudos.</i>
1910						
General (Foreign Countries)	.	.	.	.	3,908,968	908,899
National (from Portugal)	.	.	.	.	5,336,101	226,684
Total	.	.	.	.	9,245,069	1,135,583
1911						
General	.	.	.	.	5,886,923	628,869
National	.	.	.	.	2,796,488	114,770
Total	.	.	.	.	8,683,411	743,639
1912						
General	.	.	.	.	5,466,946	525,963
National	.	.	.	.	2,657,761	102,791
Total	.	.	.	.	8,124,707	628,754
1913						
General	.	.	.	.	5,952,076	462,643
National	.	.	.	.	2,956,669	86,958
Total	.	.	.	.	8,908,745	549,601
1914						
General	.	.	.	.	5,214,467	336,927
National	.	.	.	.	5,239,695	80,946
Total	.	.	.	.	10,454,162	417,873

¹ Authority, *Anuario Colonial*.

TABLE IV
PUBLIC FINANCE OF ANGOLA

A. Budget Estimates for 1916-17

<i>Revenue.</i>	<i>Escudos.</i>	<i>Expenditure.</i>	<i>Escudos.</i>
Direct taxation and contributions . . .	674,950	General administration	1,886,612
Indirect taxation . . .	383,700	Treasury . . .	244,845
National and miscellaneous . . .	176,106	Law and Justice . . .	80,890
Compensation from expenditure ¹ . . .	15,480	Ecclesiastic . . .	27,463
Revenue for special objects and for local self-government . . .	1,897,895	Marine . . .	219,180
	3,148,131	Military . . .	1,941,700
		General charges . . .	197,552
		Miscellaneous . . .	379,624
		Closed accounts ¹ . . .	8,500
Grant-in-aid from Home Government . . .	3,397,310		
		Extraordinary expenditure ¹ . . .	1,559,075
<i>Escudos</i>	<i>6,545,441</i>	<i>Escudos</i>	<i>6,545,441</i>

¹ For explanations, see above, p. 82.

B. Revenue estimated and Revenue realized, 1913-14-15

<i>Revenue Estimated.</i>	<i>Escudos.</i>	<i>Revenue Realized.</i>	<i>Escudos.</i>
Estimate 1912-13 . . .	2,282,634	Actual 1912-13 . . .	1,917,142
		Over-estimate . . .	365,492
			2,282,634
Estimate 1913-14 . . .	2,809,022	Actual 1913-14 . . .	1,608,009
		Over-estimate . . .	1,201,013
			2,809,022
Estimate 1914-15 . . .	2,809,022	Actual 1914-15 . . .	1,256,773
		Over-estimate . . .	1,552,249
			2,809,022

C. Deficits, 1913-14-15

<i>Revenue.</i>	<i>Escudos.</i>	<i>Expenditure.</i>	<i>Escudos.</i>
For 1912-13 . . .	1,917,142	For 1912-13 . . .	2,749,890
1913-14 . . .	1,608,009	1913-14 . . .	4,007,814
1914-15 . . .	1,256,773	1914-15 . . .	3,570,607
	4,781,924		
Deficit . . .	5,546,387		
Total . . .	10,328,311	Total . . .	10,328,311

D. *Adjustment of Deficits, 1913-14-15*

<i>Revenue.</i>	<i>Escudos.</i>	<i>Expenditure.</i>	<i>Escudos.</i>
Grants-in-aid :		Deficit as per Table C .	5,546,387
From Home Govern- ment			
1912-13 . . .	2,376,580		
1913-14 . . .	1,020,132		
1914-15 . . .	832,000		
	4,228,712		
Transfers of surplus :			
From San Thomé			
1913-14 310,000			
1914-15 200,000			
	510,000		
From Mozambique			
1913-14 . . .	240,000		
From Guinea . . .	113,000		
•	5,091,712		
Temporary appropria- tions :			
Balance of deposits in Colonial Treas- ury, borrowed to meet urgent de- mands . . .	48,288		
	5,140,000		
Balance still in default brought forward 1915-16 . . .	406,387		
<i>Escudos</i>	5,546,387	<i>Escudos</i>	5,546,387

E. *Adjustment of Deficits, 1889-1913*

<i>Adjustments.</i>	<i>Escudos.</i>	<i>Sum Total of Deficits.</i>	<i>Escudos.</i>
Transfers :		1889-1913 . . .	2,674,000
From Cape Verde . .	147,000		
Guinea . . .	113,000		
San Thomé . . .	2,214,000		
Mozambique . . .	200,000		
<i>Escudos</i>	2,674,000	<i>Escudos</i>	2,674,000

AUTHORITIES

HISTORICAL

- ALMADA NEGREIROS, A. L. DE. *Angola*. Paris, 1901.
Anuario Colonial de 1916. Lisbon, 1916.
- BARROS, JOÃO DE. *Decadas da Asia*. 4 vols. Lisbon and Madrid, 1553-1615. 2nd ed. Lisbon, 1778-88.
- BOWDICH, T. E. *Discoveries of the Portuguese in the interior of Angola*. London, 1823.
- CALDEIRA, C. J. *Apontamentos d'uma viagem de Lisboa á China*. 2 pts. (Includes an account of Angola.) Lisbon, 1852-3.
- CAMERON, Commander V. LOVETT. *Across Africa*. London, 1876.
- CAPELO, H., AND IVENS, R. *From Benguella to Yacca*. English translation by A. Elwes. 2 vols. London, 1882.
- *De Angola á Contra-Costa*. 2 vols. Lisbon, 1886.
- CARVALHO E VASCONCELLOS, ERNESTO J. DE. *As Colonias Portuguezas*. 2nd ed. Lisbon, 1903.
- Catalogo dos Governadores do Reino de Angola, &c.* Printed in *Collecção de Noticias para a Historia e Geographia das Nações ultra-marinhas*. Lisbon, 1812. Vol. iii. (This is not a mere Catalogue, but a history of Angola up to 1784.)
- JOHNSTON, Sir H. H. *The Colonization of Africa by Alien Races*. Cambridge, 1913.
- KELTIE, Sir J. SCOTT. *The Partition of Africa*. 2nd ed. London, 1899.
- MAJOR, R. H. *The Discoveries of Prince Henry the Navigator*. 2nd ed. London, 1877.
- MONTEIRO, J. J. *Angola and the River Congo*. 2 vols. London, 1875. (The historical part from Cardozo's *History of Angola*, 1825.)
- PAIVA COUCEIRO, F. I. DE. *Angola*. Lisbon, 1910.
- PIGAFETTA, F. *A Report of the Kingdom of Congo*. (By F. Pigafetta after Duarte Lopes.) Rome, 1591. (English translation by M. Hutchinson, ed. S. T. F. Burton. London, 1881.)
- SERPA PINTO, Major A. de. *How I crossed Africa*. 2 vols. London, 1881.

ECONOMIC

Official and Semi-official

Anuario Colonial de 1916. Lisbon, 1916.

British Consular Reports :

Portugal : Province of Angola, for 1909 to 1914. London 1911-15.

Portugal : Southern Angola, for 1914. London, 1915.

British Parliamentary White Books :

Cd. 6607, *Africa*, No. 2 (1913), *Contract Labour, Portuguese West Africa*. London, 1913.

Cd. 7960, *Africa*, No. 1 (1915), *Contract Labour, Portuguese West Africa*. London, 1915.

Cd. 8479, *Africa*, No. 1 (1917), *Contract Labour, Portuguese West Africa, Further Correspondence*. London, 1917.

Estatistica dos Caminhos de Ferro das Colonias Portuguezas, 1888-1913, with MS. corrections and additions up to 1917. Lisbon, 1913.

Negocios Indigenas em Angola, by Dr. José de Oliveira Diniz (Census Report and Statistical Tables). Loanda, 1914.

Relatorio da Columna de Occupação do Baixo Cubango. Loanda, 1910.

Relatorios da Sociedade de Emigração para San Thom' e Principe, vol. i, Lisbon, 1914 ; vol. ii, Lisbon, 1916.

General

ALMEIDA TEIXEIRA, ALBERTO DE. *O Caminho de Ferro de Malange* (Revista Colonial, March 1913). Lisbon, 1913.

BADOLO, IGINO. *Note sulla Situazio e Commerciale-economica del Distretto de Benguela*. Rome, 1916.

BARATA FEUO, JULIO CESAR. *Considerações sobre o Trabalho Obrigatorio da Indigena da Provincia de Angola*. Lisbon, 1911.

CARVALHO E VASCONCELLOS, ERNESTO J. DE. *As Colonias Portuguezas*. 2nd ed. Lisbon, 1903.

COSTA, EDUARDO DA. *Administração Civil das nossas Possesões Africanas*. Lisbon, 1903.

FINLAY, JAMES. *Present-Day Angola ; Benguela Railway Progress ; Trade of Portuguese West Africa* (African World, February 7, 1914).

GOMES DA COSTA, Lt.-Col. *Angola. Agricultura e Industria*. Lisbon, 1913.

GOSSEWILER, JOHN, F. L. S. *Botanical Sketch of Angola* (African World, February 7, 1914).

- JEANNEST, CHARLES. *Quatre années au Congo*. Paris, 1886.
MARVAUD, ANGEL. *Le Portugal et ses Colonies*. Paris, 1912.
MONTEIRO, JOACHIM J. *Angola and the River Congo*. London, 1875.
PEREIRA DO NASCIMENTO, DR. T. *Estudos sobre a Colonisação Agrícola do Planalto de Benguela*. Lisbon, 1913.
TARUFFI, Professor DINO. *L'Altipiano di Benguella ed il suo avvenire agricolo*. Florence, 1916.

MAPS

Angola and the Cabinda enclave are covered by 4 sheets (Loanda, Upper Congo, Benguela, and Rhodesia) of the War Office Map of Africa (G.S.G.S. 2871), on the scale of 1:2,000,000 (1919). The southern half of the country, from latitude 12 S., is covered by the War Office Map of Africa (G.S.G.S. 1539) on the scale 1:1,000,000, sheets 107-8, 109, 113-4, 115 (old numbering).

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TABLE OF CONTENTS

	PAGE
I. GEOGRAPHY PHYSICAL AND POLITICAL	
(1) Position and Frontiers	1
(2) Surface, Coast, and River System	
Surface	4
Lourenço Marques, Gaza, Inhambane	4
Mozambique Company's Territory	5
Tete	5
Quelimane, Mozambique District, Nyassa Company's Territory	6
Coast	6
River System	8
(3) Climate	
Seasons	11
Temperature	11
Rainfall	12
Winds	12
(4) Sanitary Conditions	13
(5) Race and Language	
White Population	14
Asiatics and Half-castes	15
Native Peoples	16
Languages	18
(6) Population	18
II. POLITICAL HISTORY	
Chronological Summary	21
(1) Discovery and Early Settlement	22
Early Portuguese Settlements	22
Objects of First Settlers	22
Erection of Forts on Coast	23
Vasco da Gama visits the Zambezi Delta	23
Settlement at Mozambique	24
Relations with Sultan of Kilwa	24

TABLE OF CONTENTS

[No. 121]

	PAGE
(2) The Mozambique Province	24
Establishment of Captain-Generalship	24
Barreto's Expedition to the Zambezi	25
Formation of the Zambezi Province	25
Government	25
Struggles with Tribes in the Interior	26
(3) Troubles of the Seventeenth Century	26
The Dutch attack Mozambique	26
British and French Encroachments	26
(4) Trade Conditions	26
Decline in Trade	26
Hindu Traders	26
(5) The Eighteenth and Early Nineteenth Centuries	27
Encroachments by European Powers	27
Delagoa Bay	27
Shrinkage of Portuguese Power on the Zambezi	29
(6) Mozambique in the Nineteenth Century	30
Opening up of the Interior	30
Lacerda's Journey	30
Other Expeditions	30
Livingstone's Journeys	30
Portuguese Exploration	31
British Settlements	31
Protectorate of Barotseland	31
Estrangement from Great Britain	32
Treaty of June 11, 1891	32

III. SOCIAL AND POLITICAL CONDITIONS

(1) Religious	33
(2) Political	34
(3) Public Education	34
GENERAL OBSERVATIONS	35

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION	36
(1) Internal	
(a) Roads	36
(b) Rivers and Lakes	
Rivers	37
Lakes	38

	PAGE
(c) Railways	
(i) The System in General	39
(ii) Ownership and Control	43
(iii) Adequacy to Economic Needs ; Possibilities of Expansion	44
(d) Posts and Telegraphs	44
(2) External	
(a) Ports	
Delagoa Bay	45
Inhambane and Bartholomeu Dias	47
Beira	47
Chinde	48
Quelimane	49
Parapat (Angoche)	50
Mozambique Island	50
Port Amelia	51
Ibo	51
Other Harbours	52
(b) Shipping Lines	52
(c) Telegraphic and Wireless Communication	55
(B) INDUSTRY	
(1) Labour	
(a) Supply of Labour ; Emigration and Immigration	56
(b) Labour Conditions	58
(2) Agriculture	
(a) Products of Commercial Value	
General	59
Sugar	61
Maize	64
Coco-nut Palms	64
Sisal Hemp	65
Cotton	68
Tobacco	69
Rubber	69
Oil-seeds	70
Mangrove Bark	71
Fruit	71
Live-stock	71
Game	72

TABLE OF CONTENTS

[No. 121]

	PAGE
(b) Irrigation	72
(c) Forestry	72
(d) Land Tenure	
(i) State Ownership	73
(ii) Native Occupation	73
(iii) European Occupation	74
(iv) Company Holdings	74
(3) Fisheries	75
(4) Minerals	76
(5) Manufactures	78
(C) COMMERCE	
(1) Domestic	
(a) Principal Branches of Trade	79
(b) Towns, Markets, and Fairs	80
(c) Organizations to promote Trade and Com- merce	81
(d) Foreign Interests	81
(e) Methods of Economic Penetration	82
2) Foreign	84
(a) Exports	
(i) Values	85
(ii) Countries of Destination	86
(b) Imports	
(i) Values	86
(ii) Countries of Origin	86
(c) Customs and Tariffs	87
(d) Commercial Treaties	88
(D) FINANCE	
(1) Public Finance	90
(2) Currency	91
(3) Banking	92
(4) Influence of Foreign Capital	92
(5) Principal Fields of Investment	93
(E) GENERAL REMARKS	93

APPENDIX

Document I. Anglo-Portuguese Treaty of June 11, 1891	95
Document II. Award of H.M. the King of Italy, May 30, 1905	97

	PAGE
Document III. Award of Signor Vigliani, January 30, 1897	98
Document IV. Annexe to the Treaty of June 11, 1891	100
Document V. German-Portuguese Treaty of December 30, 1886	100
Table I. Trade of Mozambique Province, 1906 and 1911-15	102
Table II. Trade of Mozambique Province by Ports, 1911-16	103
Table III. Return of Shipping visiting Lourenço Marques, 1909-13	104
Table IV. Return of Shipping visiting Beira, 1913-16	105
Table V. Return of Shipping entering Ports of State-administered Territories of Portuguese East Africa, 1911-15	106
AUTHORITIES	107
MAPS	109

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

THE Province of Mozambique,¹ or Portuguese East Africa, of which Lourenço Marques on Delagoa Bay is the capital, extends along the coast of the Mozambique Channel from Oro Point (26° 52' S.) in the south to a point (10° 40' S.) near Cape Delgado in the north.

The total area of the territory is about 295,000 square miles (the Portuguese official returns give 765,000 square kilometres).² The principal political divisions are :

	<i>Area, square miles.</i>
Lourenço Marques district	6,700
Gaza	22,000
Inhambane district	21,000
Mozambique Company's territory	60,000
Tete district	39,600
Quelimane district (Zambezia)	39,700
Mozambique district	33,000
Nyassa ³ Company's territory	73,000

Reckoned from the figures given above, Portugal possesses, roughly, 122,700 square miles of territory

¹ The official designation of the Province of Mozambique, covering the whole territory, makes for confusion, inasmuch as the name is also used in the title of the Mozambique Company, whose territory is distinct from the administrative district of Mozambique, of which the town of Mozambique is the capital.

² These may be taken as minimum figures, a careful measurement on the map suggesting that the area is possibly as much as 301,000 square miles. Some considerably larger estimates will be found, but appear to be erroneous.

³ This name is so spelt in the title of the Company.

south of the Zambezi, and 172,300 square miles north of it. For the sake of comparison, it may be added that Tanganyika (the territory formerly known as German East Africa) has an area estimated at 385,000 square miles.

+ Mozambique is bounded on the east by the sea, and on the landward sides by British territory, except in the north, where it marches with Tanganyika. On the south it marches with Natal; on the west successively with the Transvaal, Southern and Northern Rhodesia, and the Nyasaland Protectorate.

The territory coincides with no definite natural or ethnical division. Its frontiers are sometimes determined by physical features, or at least follow their general guidance; elsewhere, the lines are artificial.

The short southern frontier runs west from Oro Point to the junction of the Pongolo and Usuto rivers, thence following the latter for a few miles upward. From here the western frontier has a general direction north along the line of the Lebombo chain, across the Inkomati river, the Olifants river, and the Shingwedzi, to the junction of the Pafuri with the Limpopo. Crossing the Limpopo, it runs in a straight line north-east to the junction of the Sabi river with the Lunde.

From here the line runs northward through the broken, mountainous country on the edge of the high plateau of Southern Rhodesia, being deflected so as to leave Massikessi in the Portuguese sphere; at this point the Beira-Mashonaland railway now passes from Portuguese into British territory. The boundary then runs north to the point where the River Mazoe is intersected by the meridian of 33° east longitude.

Here the frontier turns west-north-west, in a succession of straight lines, across the Luia (Ruia) river to the Mkumvura, which it follows down nearly to its confluence with the Msangezi. It then follows another

tributary of that river as far as the 16th parallel, along which it runs west to the Angwa river, and then turns due north to the Zambezi opposite the confluence of the Aruangwa or Loangwa.

North of the Zambezi, the frontier follows the Aruangwa as far as the parallel of 15° south latitude. Here it turns east-north-east, and runs in a straight line up to 14° south, where it meets the frontier between Northern Rhodesia and the Nyasaland Protectorate. It then runs successively south-east, east by north, south, and again south-east, following the watershed between tributaries of the Zambezi, affluents of Lake Nyasa, and tributaries of the Shire to within 25 miles of the Zambezi above Sena. Then the line turns east to the Shire, which it follows northward to the confluence of the Ruvo. That river and its tributary the Malosa are followed to about 16° south latitude, after which the line runs directly northward to the south-eastern corner of Lake Shirwa. The boundary follows the eastern shores both of this lake and of Lake Shiuta (Chiuta) to the north, and then turns north-west to the eastern shore of Lake Nyasa at 13° 30' south latitude, the lake forming the boundary as far as the mouth of the Kivindi stream (11° 34' S.).

The northern frontier runs up the Kivindi for a short distance, then due east in an almost straight line to the Kipingi and Msinje rivers, which it follows down to the junction of the latter with the Rovuma river. The Rovuma then forms the boundary to within a short distance of its mouth; the numerous islands in it are now in British territory down to 38° 8' east longitude, and those south of that point in Portuguese. From about 10° 43' south latitude on the lower Rovuma the frontier runs parallel to the right bank of the river, leaving a narrow strip in British territory as high up the river as the lowest ford, thence bearing towards the coast

at Ras Lipuu, a little north of Cape Delgado, so that the territory on both sides of the Rovuma mouth, formerly German, is now British.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

The surface is broadly divisible between (1) the coastal lowland, (2) the shelf or middle plateau, and (3) the high plateaux and mountains.

(1) The low coast is backed by a lowland, of gentle slope and no great depth inland except in the south and along the lower courses of large rivers. The extreme altitude is 500–600 ft., but most of it lies much lower.

(2) The shelf, of plateau form and moderate elevation (800–2,000 ft.), has a gently undulating surface frequently broken by the ‘island-hills’ or ‘island-mountains’ which in Mozambique belong mainly, though not exclusively, to this particular natural division. These hills occur in immense numbers and in a variety of forms and sizes, from the single *kopje* a few hundred feet in height to the lofty mountain mass. ‘The most striking feature of these detached groups of hills lies in the abruptness of their discontinuity with the plateau.’

(3) The high plateaux of South and East Africa, which have a mean elevation of about 3,500 ft., are rimmed in part by a rampart of mountains such as are found along the western frontier of the Mozambique Company’s territory, and again, farther north, to the west of the great rift or line of depression which is occupied by the River Shire and Lake Nyasa.

The surface features of the various political divisions of the Province may be briefly described.

Lourenço Marques, Gaza, Inhambane.—The coastal plain behind Delagoa Bay, in the district of Lourenço

Marques, is for the most part level or gently undulating. Locally it is marshy or sandy, but as a whole it is fertile. Farther north, in Gaza and Inhambane, the surface of the plain is only in part well watered.

The Lebombo Mountains, along the frontier, rise somewhat abruptly from the plain to a general elevation of 1,800–2,000 ft.

Mozambique Company's Territory (Manika, Sofāla, &c.).—The lowlands of this territory cover half its total area. The lowland of the Sabi, in the south, is rather dry, and extends inland to the frontier. About the latitude of Beira the lowland is much narrower, and farther north it is broken by the Sheringoma plateau, about 1,000 ft. high. Between this plateau on the east and the edge of the upland on the west in the Gorongosa country is the Urema depression, where the divide between the Pungwe and Zambezi basins is lost in the marshes, and in the rainy season a continuous water-connexion is formed between the two rivers.

The shelf or middle plateau in the Mozambique Company's territory covers an area of nearly 20,000 square miles. It is for the most part well watered by numerous swift-flowing perennial streams. The elevation lies mostly between 1,000 and 2,000 ft., and the surface is broken by the deep valleys of the streams towards its eastern edge, and by the characteristic 'island-mountains'. The Gorongosa Mountains, west of the Urema depression, reach an extreme height of 6,500 ft.

Along the frontier north of the lowland of the Sabi are the highlands fringing the interior plateau of Rhodesia. Heights of 5,000–8,000 ft. occur, though the greatest heights lie outside Portuguese territory.

Tete.—Most of this district belongs to the middle and higher plateau regions. The surface in the south is generally rolling, with isolated hills and ridges. To the north of the Zambezi valley there is a general slope

upward and northward to the southern edge of the Central African plateau in the Maravia country. The heights of the eastern frontier, on the watershed between the Nyasa and Zambezi basins, reach 6,000–7,000 ft. Great parts of the district are fertile, but there is a liability to drought in the dry season.

Quelimane, Mozambique District, Nyassa Company's Territory.—The coastal lowland gradually narrows northward from the delta of the Zambezi, an extensive, well-watered lowland, in parts richly fertile. North of the region of Maganja da Costa (eastern Quelimane) and the Mozambique district the coastal lowland widens to an average of some 30 miles. The shelf or middle plateau zone, on the other hand, has a considerably greater width than farther south; it is a rolling forested surface broken by abrupt eminences and important mountain masses, among which Namuli reaches a height of 8,050 ft.

The valley of the Lujenda river cuts athwart the Nyassa Company's territory from south-west to north, and to the west of it the plateau rises gradually from an elevation of 1,100–1,400 ft. to 3,500–6,500 ft. in the continuous mountain chain east of Lake Nyasa. A great part of the country consists of high-lying plains or rolling uplands intersected by numerous streams and small rivers. The coast of the lake, lying as it does 2,000–4,000 ft. lower than the bordering highlands, has its own characteristics of climate and vegetation.

Coast

The coast has a length of 1,430 miles, and forms two great outcurves, one between Delagoa Bay and Beira, and another between Beira and the Rovuma river. It consists frequently of mangrove swamps, alternating with sandy beaches. There is a marked difference in the coast respectively south and north of a point

near Mozambique town. South of this point the coast is generally very low, and along much of this stretch, especially between the northern extremity of Delagoa Bay and Inhambane, lagoons lie close behind the shore-line ; elsewhere there are often marshes. From Mozambique northward the coast becomes more broken, rocky at intervals, and in some parts bolder.

Along the coast there are a large number of estuaries and creeks. There is plenty of shelter in these for the small amount of coastwise shipping which is carried on by dhows, &c., and some have become the sites of important ports, such as Delagoa Bay (Lourenço Marques), Inhambane, Beira, Chinde, Quelimane, and others. These estuaries have generally more or less difficult bars, which may be liable to change, and the entrances to the Zambezi in particular are never alike for two seasons. The bolder coast from Mozambique town northward has several fine natural harbours, though little use is made of them. Port Mokambo (Kivolani Bay), Mossuril (Mosoril) Bay, with Mozambique Harbour, Fernão Veloso Bay, Memba Bay, and Pemba (Pomba) Bay, are all extensive and well sheltered.

There are three principal chains of islands off the coast—the Bazaruto group (about lat. 22° S.), the Primeira and Angoche (Angosh) groups (about 17° S.), and the Kerimba chain in the north (off the Nyassa Company's coast). They afford sheltered anchorages on the landward side, as also do the coral reefs which intermittently fringe the northern part of the coast.

The low-lying coast, in some parts imperfectly surveyed, the changing character of bars, and the somewhat uncertain nature of the currents in the Mozambique Channel, owing to the seasonal changes of the monsoons and the influence of the tides, make for difficulties of navigation.

River System

A distinction should be drawn between the longer rivers which rise in the highlands of the interior and have a perennial flow, and those shorter rivers which water only the coastal slopes, and are often intermittent in flow. Such rivers as those of the Delagoa basin, the Limpopo, Sabi, Zambezi, Lujenda, Rovuma, and others, are perennial rivers, although, as a result of the division of the year into wet and dry seasons, their flow varies greatly according to season. The Zambezi floods normally twice a year : (1) in late December and early January, under the influence of local rains ; (2) in February–March, under the influence of the rise of headstreams in the distant interior. The first rise is normally some 15 ft. above low-water level, the second 20 ft. or more. As for the other large rivers, the Limpopo in its upper course through the territory shrinks in the dry season to a chain of deep pools connected by shallow streams. The Lurio at the same season is fordable on foot near its mouth. The Rovuma, below its confluence with the Lujenda, is estimated to rise some 18 ft. in flood.

The lowland tracks of most of the rivers have certain features in common, such as wide sandy beds, in which the channels change position and vary in depth from time to time ; in many rivers, again, islands are numerous, and are sometimes fertile and populous, notably in the Lujenda and Rovuma. Rivers with such characteristics must be more or less difficult to cross, to bridge, or to navigate, and the fluctuation of flow between the seasons militates against their utility as sources of power. On the other hand, the estuarine courses of the rivers are in several cases more or less important for navigation, and in this connexion reference may be made to (1) the chain of lagoons south-

west of Inhambane towards the Limpopo, and (2) the ramification of estuaries and creeks in the low coastal plains north-east of Quelimane, on which inland navigation might be developed.

The highlands are generally well watered, and some of the larger rivers, in their upper courses, should readily afford power.

The Zambezi, by far the most important waterway in the province, is broad and open from Zumbo on the western frontier down to Shikoa. Below this it narrows between hills to a minimum of 40–60 yds. at low water, forming the unnavigable Kabroabasa rapids for some 60 miles. Below these, down to and beyond Tete, the river is of regular depth and free of serious obstruction : the width is generally about half a mile. Below Sungo is the Lupata (Luapata) gorge, which is 10 miles long, and at times not over 600 yds. wide. The river is here deep and fairly navigable. Below the gorge it widens suddenly : the bed is sandy and mobile, the banks are low, soft, and unstable ; channels, shoals, and banks shift and change, and navigation is never easy. The normal breadth of the river below Sena is from one-half to three miles, but in high water the floods may spread widely over the lowland. The delta begins some 80 miles above the mouth, and the river reaches the sea through seven principal branches, of which the Chinde, with the port of that name, is the deepest and economically the most important, though one of the narrowest and most tortuous.

None of the tributaries of the Zambezi is of any great importance to communications except the Shire, which enters Portuguese territory from the British Nyasaland Protectorate. It flows from Lake Nyasa. Of late years, for some reason unknown, the greatest rise of Lake Nyasa seldom adds more than 2 ft. to the dry-season height of the river. This change has attracted

much attention in view of its prejudicial effect on the navigation of the Shire, the importance of which, however, is diminished by the completion of the railway from Nyasaland to the Zambezi at Chindio (Shindio).

The name of the Delagoa drainage area may be applied collectively to the basins of those rivers which enter Delagoa Bay—the Maputo or Usuto in the south, the Tembe, Umbeluzi, and Matolla in the centre, the Inkomati in the north, and their numerous tributaries. The outlet—Delagoa Bay, with the port of Lourenço Marques — and about one-third of this area are Portuguese.

The next river to the north is the Limpopo, one of the first order of South African rivers. Portugal possesses the lowland of the Limpopo, as of the Delagoa drainage area.

The Sabi receives no considerable tributary in Portuguese territory, where its lower valley is a narrow, shallow trough striking west and east from the frontier to the sea.

North of the Sabi, in the Sofāla country, there are a few short independent rivers; then follows the more important basin of the Buzi (with its tributary the Revwe) and the Pungwe. These rivers lie almost wholly in Portuguese territory.

The country north of the Zambezi basin has four principal drainage areas, namely, those of the Likungo, Ligonya, Lurio, and Rovuma rivers. These have their head-streams in the highlands of the interior, but only the Rovuma basin extends beyond Portuguese territory, the main river rising in the Tanganyika territory, and its tributary, the Lujenda, collecting head-waters from the parts of the Nyasaland Protectorate south-east of Lake Nyasa. The parts of the shelf and lowland towards and along the coast intervening between the lower courses of these rivers are drained by

shorter and relatively unimportant streams. Towards the Nyasaland frontier Portuguese territory includes part of the small inland drainage area of Lake Shirwa.

(3) CLIMATE

Seasons.—The year falls into two main divisions: (a) a hot rainy season from November to March or April, (b) a cool dry season for the rest of the year. In the northern half of the coast lands the seasons are distinguished as those of the northern and southern monsoons, but the winds do not blow there with the same regularity as farther north, and to the south they gradually lose the monsoon character.

Temperature.—The temperature is generally highest in November, December, or January, according to locality. The greatest heat is met with along the coast and up the Zambezi; thus, some mean temperatures for the hottest months are: Lourenço Marques, January, 79° F. (26° C.); Beira, December, 81° F. (27° C.); Tete, November, 84° F. (29° C.); Mozambique, December, 83° F. (28.5° C.); Ibo, January, 82° F. (28° C.). The coolest months are July or June, thus: Lourenço Marques, June, 65° F. (18.5° C.); Beira, July, 69° F. (20.5° C.); Tete, July, 73° F. (22.5° C.); Mozambique, July, 73° F. (23° C.); Ibo, July, 74° F. (23.5° C.). The mean temperature for the year is higher in the north than in the south; the range of temperature is greater in the south than in the north. The figures quoted, however, are all for low-lying places—there are no corresponding figures for the higher parts of the country. But even in the north, on the middle plateau of the Nyassa Company's territory, it is said that the evenings and mornings are cool and pleasant during eight months of the year, and in the mountainous country east of Lake Nyasa an absolute

maximum of 90° F. (32° C.) and an absolute minimum of 38° F. (3.5° C.) have been recorded. Both absolute maxima and minima are very much higher than this at the low-lying stations, maxima well over 100° F. (38° C.) occurring at all of them.

Rainfall.—In the coastal districts both the date of the beginning of the rainy season and the total rainfall vary considerably from one year to another. Generally, the annual rainfall along the coast ranges from 28 to 40 in. (710 to 1000 mm.), being, on the whole, heavier in the north than in the south; but it is considerably higher at certain points, e. g. at Beira, where it approaches 60 in. (1520 mm.), and in the Quelimane district. As a rule the rains begin earlier in the south than in the north. At Lourenço Marques some 3½ in. (90 mm.) fall in November on an average, rather more in December, and sometimes twice as much in January. At Mozambique the November fall is very little, in December about 5 in. (130 mm.), and in January and February 7–8 in. (180–200 mm.). In general, the rainfall is low for the latitude, especially in districts behind those parts of the coast which lie south-west and north-east. Thus there are definitely dry areas in the interior of Gaza, in Barue and Tete districts, and in northern Quelimane and Mozambique districts. For example, the mean annual rainfall at Broma, north-west of Tete, is about 22 in. (560 mm.). But the rainfall increases greatly in the highlands, especially east of the Shire and of Lake Nyasa.

Winds.—The northern monsoon sets in between mid-September and mid-October, and the southern monsoon between mid-March and mid-April. The former season is, as a rule, that of least wind and smoothest water on this coast; on the other hand, such gales as occur in the Mozambique Channel are most usually at this season or at the turn of the monsoon. Indian Ocean cyclones occa-

sionally reach the northern part of the channel and do heavy damage. South of Beira the northern monsoon ceases and the winds become variable ; at Beira itself south-easterly winds are by far the most prevalent, followed by south-west, east, and south ; at Lourenço Marques the range is from south to east, south-west winds being rare. In the interior generally, the prevalence of winds from a southerly or easterly quarter is still more marked than on the coast, and the systematic change of wind with the coming of the rainy season is less noticeable.

(4) SANITARY CONDITIONS

The whole coastal belt bears a reputation for unhealthiness, but, as elsewhere in tropical and sub-tropical lands, the conditions have been to a considerable degree improved during recent years. While there is a marked contrast between conditions at the coast and on the middle plateau and highlands, over a large proportion of the territory the moist heat of the summer months is trying and weakening, and predisposes the European towards disease.

The two serious sources of danger to the health of Europeans are malaria and dysentery, but the second is not common. Epidemics of small-pox, cholera, &c., have occurred among the natives, who also suffer fairly commonly from skin diseases, rheumatism, and other illnesses which rarely attack Europeans in the province. Blackwater fever is rare. Venereal diseases attack many persons among the immigrant population in larger centres and among returned native labourers, but it is said that some success has attended regulations recently made in this connexion.

Conditions at Lourenço Marques have been much improved of recent years, and white children appear

to flourish there now. Inhambane has the reputation of being the healthiest station on the coast. Beira, notwithstanding its low-lying situation near marshes, is said to be practically free of malaria. While in the delta and valley of the Zambezi fever is common, Chinde and Quelimane towns are conspicuously free of it. Mozambique town, on the other hand, in spite of its insular situation, is very unhealthy.

(5) RACE AND LANGUAGE

White Population

The number of white inhabitants is not large. One of the best Portuguese colonial authorities has complained that the type of his countrymen who go to the province is not good, that they lack both ability and capital, and aim only at making sufficient money to return with a competence to the mother country. Few settle on the land, though there has been of recent years some increase in the number doing so, principally in Lourenço Marques and southern Inhambane districts, and on the uplands along the railway from Beira.

There are no systematic figures distinguishing the white population according to nationality, but from various computations during a few years before 1914 it appears that there were the following foreign elements in the principal ports named :

		<i>Lourenço Marques.</i>	<i>Beira.</i>	<i>Chinde.</i>
British	. .	668	268	31
German	. .	106	45	24
Italians	. .	80	47	—
Greeks	. .	149	123	—

Other European elements (excluding Portuguese) were insignificant. The number of Portuguese at

Lourenço Marques appears to have been about 4,500, at Beira 700, at Chinde 150.

Asiatics and Half-castes

The other elements in the population of the colony besides the natives and the Europeans are as follow :

1. The *Arabs* were the leading influence along the coast before the coming of the Portuguese, and their authority became re-established when Portuguese power waned. The Sultans of Zanzibar had much power. The propaganda of Islam spread ; the Makwas along the coast were largely Mohammedan, and the Yaos, who imitated the Arabs in many ways, brought the cult inland. The great occupation of the Arabs was the slave-trade. Their language is Swahili, a Bantu dialect with a large infusion of Arab words, which forms a *lingua franca* over much of East Africa. There is one special denomination of Arabs along the coast, known as Mujojos, who are principally sailors.

2. The natives who have become blended with the Asiatic Moslems are called *Monhes*, and are numerous on the coast. Judging from their type of countenance, they seem to have but a slight infusion of Arab blood. The term, however, is very variously used, some books speaking of all foreign Moslems as Monhes, others confining the word to Indian Mussulmans, while others even use the word as synonymous with Banyans.

3. The *Banyans* are the non-Christian Hindus ; they were originally introduced into East Africa at the end of the seventeenth century. The Banyans are small traders ; they have grasped the mentality of a native better than a European can, they can easily acquire foreign tongues, are unaffected by the climate, and the cost of living to them is almost nothing. They add nothing to the strength of the country, as they are unfit to bear arms, and they add nothing to its

revenue, though they carry a great deal out. They do not bring their womenfolk with them, and invariably retire to India when they have made enough money.

4. The *Goanese* have come from the Portuguese possessions of India. They are Roman Catholics, and are largely clerks, employed at the ports in the custom and other Government services. They are liable to disease, especially malaria.

5. In 1912 there were some 300 Chinese in Lourenço Marques, and they are also found in other eastern ports.

Native Peoples

The native tribal divisions are confusing. Hardly any tribe has one name only ; moreover, in European literature there is no community of practice in transcribing tribal names. Again, the tribes, especially in and south of the Zambezi districts, have become greatly mixed. Tribes have taken the names and copied the customs of their conquerors ; enslaved populations have amalgamated with their enslavers ; freed slaves have become in their turn leaders of the population among whom they have settled. The most important event in determining the position and relations of the tribes in the south of the Province was the movement of Zulus from the south at the beginning of the nineteenth century. So far as concerns Mozambique Province, this invasion has affected the country in two directions : (1) south of the Zambezi the Vatwas, a proud, warlike, and commanding people, are the predominant, though not the largest, element in the population of Lourenço Marques, Gaza, and Inhambane ; (2) the Angonis, also a warlike people, moved to the region of Lake Nyasa, but they are more numerous in British than in Portuguese territory, and have kept their stock much less pure than the Vatwas.

The southern tribes which have come under the influence of the Vatwas are known generally as Tongas (Amatongas, Barongas). The name Landin is applied specifically to them by the Portuguese, though it is also used loosely of all tribes which are of Zulu origin or have come under Zulu influence. In most cases it represents a very small racial element that is Zulu, but a great deal of Zulu influence in ways of life and in military organization. The Tonga tribes exhibit two types, much intermingled: (a) the typical negro, and (b) people with narrow faces, thin lips, and pointed noses, suggesting Arabic influence.

The conditions along the Zambezi differ materially from those found farther north. Instead of large and important tribes like the Yaos, Makwas, &c., there is little of the tribal system. In this locality long acquaintance with European civilization has modified many native customs and habits of mind. European dress and a knowledge of Portuguese are not uncommon. An Arab type is spread all along the Zambezi valley.

North of the Zambezi, as has been indicated, the tribes are as a rule larger and more distinct, and the principal are the following :

1. The Makwas, who occupy the country between 17° and 11° south latitude, and between Lake Nyasa and the Indian Ocean. The Makwas are as a rule quiet, sedentary, and industrious. An unusually well-developed system of judicial administration exists among them.

2. The Mavias, who inhabit the plateau south of the Rovuma and east of the Lujenda.

3. The Mavitis, who are raiders from the north, principally in the same locality.

4. The Yaos, who inhabit the region between Lake Nyasa and the Rovuma and Lujenda rivers, and have extended south-west to the Shire region. They are an unusually fine race, tall and strong, originally aggres-

sive, but now quieter ; they take naturally to trade and show many signs of Arab influence.

5. The Nyasas (Anyanjas), occupying much of the same region as the Yaos, who have long terrorized them. They are quiet, timid, and essentially an industrial people.

6. The Magwangaras, who are raiders and fighters, and live along the east side of Lake Nyasa, mostly north of Portuguese territory.

Languages

The native peoples that inhabit the Province of Mozambique are members of the Bantu stock. This name is applied to all those peoples, south of the Nilotic lands and north of those of the Hottentot and Bushman, who spread south of the Equator to the Cape Province and speak languages which have sufficient in common to be grouped as Bantu speech. The principal varieties of Bantu spoken in Mozambique are Tonga, the language of the peoples of Lourenço Marques, Gaza, and Inham-bane, and farther north Nyasa (Anyanja), with a variety of dialects, the most important of which is Ki-senga, spoken along the Zambezi valley; Makwa, with four distinct dialects, and Yao. Two other Bantu tongues have come into the land : Zulu-Kafir, which has been brought by raiders from Zululand across the whole country, so that the Magwangaras of Lake Nyasa have Zulu words ; and Swahili, the Arabized Bantu speech of the Zanzibar coast, which is spoken to some extent in the north-east, while the Makondes speak a tongue closely allied to it.

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(6) POPULATION

The Province of Mozambique is not densely populated as a whole ; the average density is possibly 9 or 10 per square mile, as compared with 27 in Natal and 12 in

Transvaal. Little can be said as to density in different parts. It is controlled to a considerable extent, however, by the conditions of moisture. Thus, in the southern districts the most densely populated parts lie along the coast lands of Lourenço Marques, Gaza, and Inhambane, while the drier northern parts of the two last are more sparsely populated. In the Zambezi valley, similarly, the parts above the Lupata gorge are less densely inhabited than those below it.

There is no systematic census. The figures given below are collected from a number of the latest available sources :

	<i>Year.</i>	<i>Whites.</i>	<i>Asi-atics.</i>	<i>Half-castes.</i>	<i>Natives.</i>	<i>Total.</i>
Lourenço Marques district	1908	650	701	105	99,698	101,154
Lourenço Marques city and suburbs	1912	5,560	3,174		17,345	26,079
Gaza	1908	393	—	370	147,995	148,758
Inhambane district	?	?	?	?	500,000?	500,000?
Mozambique Co.'s territory	1915	1,912	1,025	1,576	290,124	294,637
Tete district	1908	185	74	—	160,000	160,259
Quelimane district	1908	1,091	2,391		527,000	530,482
Mozambique district	1914?	559	733	—	537,865	539,157
Nyassa Co.'s territory	1915	184	272	336	520,343	521,135

Some of these figures are obviously of little value. Together they suggest totals of about 10,500 whites, a rather larger number of Asiatics and half-castes, and about 2,800,000 natives, for the whole province, and other estimates approximate to this, but the number of natives in areas not under direct control cannot be taken into account.

The chief towns, in addition to Lourenço Marques (given above), had the following populations in the years stated :

Inhambane (1908), 206 whites ; 539 Asiatics ; 540 natives : total, 1,285.

Beira (1914), 1,197 whites ; 571 Asiatics ; 327 half-castes ; 7,324 natives : total, 9,419.

Chinde (Shinde, 1908), 218 whites ; 107 Asiatics ; 1,365 natives : total, 1,690.

Quelimane (Kiliman, 1911), 165 whites ; 397 Asiatics ; 2,182 natives : total, 2,744.

Mozambique (Moçambique, 1914), 296 whites ; 312 Asiatics ; 4,634 natives : total, 5,242.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1498. January 11. Vasco da Gama arrives in Delagoa Bay.
- 1498. January 25. Vasco da Gama reaches mouth of Zambezi.
- 1498. March 2. Arrival of Vasco da Gama at Mozambique.
- 1498. April 7. Arrival of Vasco da Gama at Mombasa.
- 1498. April 24. Vasco da Gama sails from Malindi for Calicut.
- 1505. D'Almeida takes Kilwa and Mombasa.
- 1505. Fort erected at Sofāla.
- 1506. Discovery of Madagascar.
- 1506. Barāwa taken by Tristão da Cunha.
- 1507. Sokotra occupied by da Cunha and A. d'Albuquerque.
- 1507. Fort erected at Mozambique, which becomes the capital.
- 1545. Exploration by Lourenço Marques of the bay so called.
- 1569. Francisco Barreto appointed Captain-General.
- 1569. Failure of the Monomotapa Expedition.
- 1584-9. Turkish attacks on Mombasa and Zanzibar coast.
- 1609. Mozambique raised to a Governorship.
- 1623. Abandonment of search for gold.
- 1651. Dutch settlement at Cape Town.
- 1651-2. Loss of Muscat.
- 1655. French settlement in Madagascar.
- 1686. First introduction of Indian traders.
- 1698. Muscat Seyyids conquer Zanzibar coast.
- 1725. Final loss of Mombasa.
- 1730. Abandonment of Lourenço Marques.
- 1752. Separation of Mozambique from Goa. Lourenço Marques the most southerly point named.
- 1776. Austrian settlement at Lourenço Marques.
- 1798. Expedition of Lacerda to Lake Mweru.
- 1818. Fort of Mossuril, on mainland near Mozambique, restored.
- 1824. Captain Owen occupies south shore of Delagoa Bay.
- 1831. Expedition of Monteiro and Gamitto to Lunda.
- 1856. Livingstone's journey down the Zambezi.

- 1866. Livingstone's journey to Lake Nyasa.
- 1875. Delagoa Bay arbitration.
- 1877-8. Serpa Pinto's journey.
- 1886. German-Portuguese Treaty.
- 1887-8. Portuguese claims to territory from East to West Africa.
- 1889. Formation of British Protectorates.
- 1891. Treaty with United Kingdom.

(1) DISCOVERY AND EARLY SETTLEMENT

THE colony of Mozambique has been a Portuguese possession, so far as the greater portion of its coast-line is concerned, for a longer period than any other part of the continent of Africa; for, although Guinea and Angola were discovered earlier, there was no permanent occupation of those districts until after the first settlements had been made on the shores of the Indian Ocean. As is manifest from the early history of Angola, all attempts to colonize the west coast were suspended after the rounding of the Cape of Good Hope and the discovery of Brazil, as all the resources of Portugal were required to enable her to prosecute her ambitious schemes in the Indian Ocean and South America. The first settlements began from Sofala (for Lourenço Marques was settled later), and in a few years there was a chain of fortified posts extending thence northwards along the coasts not only of Mozambique but of what are now Tanganyika, Kenya, and Italian Somaliland. The object which the explorers had in view was to obtain control of the eastern trade which passed through the Red Sea and the Persian Gulf, and to divert it forcibly to a route which would be under their own command, thus escaping the heavy toll levied on all European trade by the Mohammedan Powers, and especially the Turks, through whose hands it passed.

With this aim before them, they paid little attention to the temperate regions of South Africa, then inhabited almost entirely by Hottentots and Bushmen, and pushed on until they had rounded Cape Correntes (Cabo das Correntes, the 'Cape of Currents'), and arrived at the regions frequented by the Arab traders.

Sofāla was the farthest point south reached by the Arabs. It was governed by a sheikh who was subordinate to the powerful ruler of Quiloa or Kilwa (Kilwa Kisiwani). Here the Arabs could carry on a profitable trade in gold-dust brought down from the great inland kingdom known (from the title of its ruler) as Benametapa or Monomotapa. After Vasco da Gama's first and second voyages and Cabral's voyage, information had accumulated which determined the King, Dom Manuel, to take possession of important points on this coast; and Sofāla and Kilwa were chosen for the erection of the first forts. In 1505 the Sofāla fort was begun by Pero d'Anhaya. It was an unfortunate choice, for the site was low and unhealthy, and the Portuguese suffered severely. Nevertheless, the fort was built, and has continued in Portuguese hands till the present day.

The delta of the Zambezi and a town on an island in the principal mouth were visited by Vasco da Gama on his first voyage. He called it 'the river of good signs', as it was there that he first met signs of Arab civilization, for he had not touched at Sofāla.

Vasco da Gama and his immediate followers did not touch at Angoya; and their next port on their northward voyages was Moçambique (Mozambique), an Arab town on an island at the narrowest point of the Mozambique Channel, which afterwards widens out northwards. Here an Arab sheikh ruled as representative of the Sultan of Kilwa. The Portuguese found a good roadstead, with abundance of wood and pro-

visions ; and, though the island was without fresh water, supplies were easily obtained from the mainland. Finding it a convenient rendezvous for ships on their way to and from India, Duarte de Mello in 1507 built a fort there. A residency, a hospital, a church, and other necessary buildings were afterwards erected ; and Mozambique was henceforward equipped as a centre of administration.

No opposition seems to have been offered to the occupation of Mozambique. In fact, the town of Kilwa, which was the capital of its suzerain, was by this time under Portuguese influence. The Sultan had been compelled by Vasco da Gama on his second voyage to promise to pay tribute ; and d'Almeida, on his voyage to India in 1505, established Portuguese supremacy and erected a fort. Apparently the great trade of the place was ruined by Portuguese interference ; for it fell off rapidly, and the fort was soon dismantled and abandoned. It is possible that the establishment of the strong post at Mozambique was considered to provide sufficiently for the security of the Portuguese fleets ; and Kilwa, as after-events showed, was open to attack, not only from Arabs of the coast, but from powerful tribes of the interior.

(2) THE MOZAMBIQUE PROVINCE

The Mozambique Province from this time forward, although often threatened, continued under Portuguese rule through all vicissitudes. In 1569 the Portuguese King, Dom Sebastião, established a separate Captain-Generalship of the ' Mines of Monomotapa '. It was raised to a Governorship in 1609, but still remained under the Viceroy at Goa until 1752, when a separate Governor-General was appointed and all connexion with Goa was broken off. The first Captain-General, Francisco Barreto, resolved to extend

Portuguese power up the Zambezi and to the region of Monomotapa, where he expected to find valuable gold-mines. He organized a powerful expedition, and landing at Quelimane made his way through the delta region to the main stream of the Zambezi. His expedition ended in failure. There was already a trading settlement of Portuguese at Sena ; but the expedition was regarded with suspicion by the Arab traders ; the beasts of burden died from the attacks of the tsetse fly ; the Portuguese were attacked by unfriendly natives, and few of the troops survived ; Barreto died, and an attempt to reach Monomotapa by the more promising Sofala route also failed. Other expeditions took place in search of gold and silver mines, which were, as one of the Portuguese writers has said, 'like a fleeing shadow', always retiring as it is approached. Such as were discovered did not pay their expenses. After the year 1623 the search was suspended, although exploring expeditions continued to be sent into the interior for some time, and a province was gradually formed on the Zambezi.

The system of government was bad ; offices were sold to speculators, whose rights were allowed to pass to their heirs, and often came into the hands of women. Attempts were made to limit the succession to persons of unmixed European blood, but they broke down in practice. The lower Zambezi was unsuited to European colonization and none of the healthy uplands in this part of Africa were occupied by the Portuguese.

The forcible acquisition by Philip II of the crown of Portugal in 1580 led to the decline of Portuguese sea-power and the paralysis of all enterprise by exposing the Portuguese colonies to the attacks of the Dutch and English, who seized the opportunity to establish trading ports in the East Indies. In 1641

Portugal successfully threw off the Spanish yoke ; and the example of the mother country was followed by that of all her colonies, including Mozambique. But the period of the disastrous Spanish regime had destroyed the Portuguese supremacy in the Indian Ocean beyond power of recovery. Struggles with the native tribes of the interior were frequent. The Makwas of the Mozambique coast, still half-independent, gave great trouble.

(3) TROUBLES OF THE SEVENTEENTH CENTURY

Throughout the seventeenth century troubles came thickly on the east-coast settlements. The Dutch continued their attacks, and in 1649 the English began to encroach on the trade monopoly of Portugal. The Dutch settlement at the Cape in 1651 was a threat both to East and West Africa ; and the French establishment of a factory in Madagascar in 1655 was another sign that the Portuguese were no longer to have East Africa to themselves.

(4) TRADE CONDITIONS

In these circumstances trade inevitably languished. Attempts were made to revive it by various expedients. In 1671 it was freed from all restrictions and opened to all persons of Portuguese race, but in 1690 the old monopolies were restored. A more important step was the introduction of the Hindu traders or Banyans from Diu, known to the Portuguese as ' Baneanes '. Various privileges were given to them in Mozambique in 1686. These continued till 1777, when they were withdrawn ; and in 1783 these traders were restricted to the Isle of Mozambique. By this time, however, they had obtained such a hold on the trade that they required no privileges ; and the Banyans have ever since been the principal trading class in East Africa.

(5) THE EIGHTEENTH AND EARLY NINETEENTH CENTURIES

The boundaries of the Mozambique Province were much restricted by the external and internal wars which crippled the Portuguese, and these conditions lasted through the eighteenth and the first part of the nineteenth centuries. The more energetic or powerful European nations began to grasp at the trade and intrude into the ports on the north and south in places where Portuguese rule had frequently either absolutely disappeared or become a mere tradition. The French had trading stations at Kilwa and in Madagascar, and raided Lourenço Marques and Inhambane.

Delagoa Bay.—From early days the Portuguese settlements had all been north of Cape Correntes, and little was known of Delagoa Bay. As this district has become so important in recent times, its history may be conveniently summed up at this point. The coast of Delagoa Bay, or at least the northern part of it, was visited by Vasco da Gama on his first voyage on January 11, 1498, when he landed at the mouth of a river to obtain water. This river, which he called the Rio do Cobre, or Copper River, is marked in Canerio's map of 1502, and in several other early maps, as Rio da Lagoa. The river was, no doubt, the Umbe-luzi and its estuary, now known as the English River, which receives also two other rivers. Although its existence was known, it does not seem to have been visited again till Lourenço Marques and Antonio Caldeira were sent by the Captain of Sofala to search for it.

João de Barros, writing in 1553, speaks of this discovery or rediscovery by Lourenço Marques of the 'Rio da Lagoa, formerly so called, but now the Rio do Espirito Sancto, the name given it by Lourenço

Marques, who discovered it in the year '45'. The name given by the discoverer, however, did not last long, and this inner bay has ever since been known by his own name. It is a more secure haven inside the wide expanse of Delagoa Bay. There is no record of any Portuguese settlement there; and in 1585, when Paulo de Lima and his companions were wrecked in this bay, the 'Cafres', or Bantu tribes, were in complete possession. The historian Couto, writing shortly afterwards, describes the sufferings of the survivors and the trouble with which they made their way to Sofala, the nearest Portuguese settlement. There was not any settlement of a permanent nature during the seventeenth century. In 1623 certain persons who had been wrecked farther south made their way to Lourenço Marques, and found it had not been visited by any traders for two years, and a similar visit was made by another shipwrecked crew in 1647.¹

Meanwhile the ships of other nations were beginning to trade with this coast. Visits of English traders are recorded in 1682, 1686, and 1687; and in 1688 the Dutch ship *Noord* found a Portuguese and an English ship in the bay. The Portuguese had put up wooden sheds and the English a tent with a view to trading with the natives. About the opening of the eighteenth century the Portuguese seem to have abandoned the struggle; and in 1721 the Dutch sent the *Zeelandia* from Cape Town to establish a dependency here. A fort called 'Lydzaamheid' was built. This venture met with no great success; buccaneers attacked it, and the settlers suffered from the climate; it was abandoned in 1730. The Portuguese made a temporary occupation again in 1755; but in 1757 the Dutch returned, and remained more than a year, finding no Portuguese there. In 1776 the Empress Maria Theresa sent out a number of

¹ Theal, *History, &c., of South Africa* (1907), i. 74, 499.

settlers from the Adriatic. The Portuguese Government protested ; but the matter was settled without any decision as to rights by the death of most of the colonists and the abandonment of the settlement.

In the proclamation of April 20, 1752, by which Mozambique was freed from its dependence upon Goa, and erected into a separate Governor-Generalship, Lourenço Marques was mentioned as the most southerly point, and it is evident that this settlement on the northern shores of this wide bay did not include the southern shore. In 1787 a small fort was built on the site of the old Dutch fort, but it was destroyed by the French in 1796. Although the Portuguese rebuilt it, it was soon again abandoned ; and the bay became a resort for British and American whalers. The southern shore of the bay was occupied by the English, under Captain Owen, in 1824 ; and the disputes began which were revived at intervals until decided by the arbitration of Marshal MacMahon in 1875. The arbitrator assigned Delagoa Bay to Portugal ; but by the Anglo-Portuguese Treaty of 1891 the right of pre-emption was secured to Great Britain. Portuguese power had been swept away from the bay by invasions of the Zulus, or Vatwas, as they were called, in 1833 ; and Lourenço Marques and Inhambane were both abandoned.

On the Zambezi, too, Portuguese power had shrunk ; and the expulsion of the Jesuits, who, whatever their faults, had done something to maintain civilization around their stations, contributed to its decay. Many of the stations were abandoned, including Zumbo, the most advanced post westwards, where a *feira*, or market for trade, had till then been maintained. Zumbo was not reoccupied till modern times.

(6) MOZAMBIQUE IN THE NINETEENTH CENTURY

Towards the end of the eighteenth century, however, there was a revival of the ancient Portuguese spirit of adventure and discovery in the person of Dr. F. J. M. Lacerda, a man of science, who became Governor of the Zambezi province. He made a very remarkable journey, following the Zambezi to Tete, and thence striking northwards to the Luapula river and Lake Mweru, where he died on October 18, 1798. He first made known the Central African kingdom of Lunda (the Cazembe country), which was visited again by Monteiro and Gamitto in 1831. Meanwhile two Portuguese half-castes had made their way from Angola to the upper Zambezi and Tete; and an English naval officer, Captain Owen (who had made the settlement above alluded to on Delagoa Bay), was the first to open up the navigation of the great river as far as Sena, all previous journeys having been made by land.

In spite of these journeys, the fortunes of the Portuguese province were at a very low ebb in the early part of the nineteenth century. The powerful tribes on the coast almost blocked all access from Mozambique; and the fort at Msasiri, on the mainland opposite Mozambique Island, was abandoned. This fort (called by the Portuguese San João de Mossuril) was restored in 1818, and about the same time attempts were made, without much success, to revive the abandoned *feiras* at Zumbo and Manika. The station at Bandire was reopened in 1831; but Zumbo was still a deserted ruin when visited by Livingstone on his return down the Zambezi from his journey to Angola in 1856. In this journey, which opened a new epoch in the history of South African exploration, Livingstone travelled down the Zambezi to Quelimane. In further journeys between 1858 and 1864 he explored the Shire river

and Lake Nyasa ; and in 1866 he penetrated from the Rovuma river through what is now the northern part of the Mozambique territory to the south of Lake Nyasa.

All these explorations roused the Portuguese to efforts to establish the continuity of their dominions between the east and west coasts of Africa. Two important expeditions started, both from Angola, with the object of opening up this country ; the first under Major Serpa Pinto in 1877-8, and the second under two officers of the Portuguese Navy, Roberto Ivens (the son of an English resident in Lisbon) and Brito Capello, in 1884-5.

From these journeys sprang the Portuguese claims in the regions of the upper Zambezi and the Congo-Zambezi watershed, which, though to a large extent barred by British remonstrance and action, were partially recognized in the Treaty of 1891 and the arbitration of 1905 regarding the Barotseland boundary. These Portuguese claims had been admitted by France and Germany in the Franco-Portuguese and Germano-Portuguese Treaties of 1886¹ (with a reservation of rights already acquired by other Powers), and were illustrated in a Portuguese map published in 1887-8.² However, British settlement had already begun within their scope. Mission stations had been formed in the Shire highlands³ and other parts of Nyasaland from 1875 onwards ; a consulate for Lake Nyasa was established in 1883 ; and in 1889 a Protectorate was formed, extending up to Lake Tanganyika and the boundaries of the newly formed Congo State. On the upper Zambezi a Protectorate of Barotseland had been established.

¹ See Hertslet's *Map of Africa by Treaty*, ii. 675, 704.

² Reproduced *ibid.* 706.

³ See *Nyasaland*, No. 95 of this series.

The divergent claims of Great Britain and Portugal to these interior regions were not easy to harmonize. Ultimately, however, a settlement was reached; and the Treaty of June 11, 1891, defined in general terms the boundaries between British and Portuguese Africa, both east and west. The German Treaty of 1886 had already established the boundaries between the Portuguese and German territories, alike in East and West Africa. Thus the Province of Mozambique was definitely constituted with settled limits; and Portugal exchanged her shadowy claims over vast territories which she had never occupied, for a well-defined and fully recognized dominion over a very extensive territory with great potentialities.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE great mass of the population consists of negroes, mainly of the Bantu stock, the great majority of whom are still attached to their primitive animistic beliefs. Along the coast, however, as far as the Arabs penetrated, there is a Mohammedan fringe. In the neighbourhood of Angoche (or Angoche Bay) there is a large population (belonging to the Monte tribe) who are Mohammedans—at any rate in name. They have adopted the Swahili language, and use the Arabic letters in writing. Among the Yaos also, on the Rovuma, the Lujenda, and farther south towards Lake Nyasa, Islam has made progress. Foreign missionary enterprise has been carried on mainly by British, American, and Swiss establishments. The American mission stations are mostly in Inhambane, and the Swiss are in Lourenço Marques. The largest part of the work generally has been done in the south of the province; there are not many missions in the north. There are a considerable number of Portuguese missions, but as religious missions from Portugal were abolished in 1913, the position of those in existence has been weakened of recent years. Secular missions (*missões civilizadoras*), however, are encouraged. The political relations between foreign missions and the Portuguese authorities have not always been happy, and though some Portuguese writers admit the value of missionary work if it connotes teaching the native to labour and

curing the more prevalent vices, their admission is usually qualified. On the other hand, a recent writer (1915) praises the work of mission schools in Lourenço Marques district, both for their general civilizing influence and for their teaching, and the secularization of some of the more important Portuguese Roman Catholic schools has been attacked on both educational and political grounds.

(2) POLITICAL

The Province of Mozambique is ruled by a Governor-General, assisted by a Government Council and a Provincial Council. The capital is at Lourenço Marques. The Province is divided into five districts—Lourenço Marques, Inhambane, Quelimane, Tete, and Mozambique, for each of which there is a Governor and a District Council.

In addition to the Province itself, there are two considerable areas administered by companies. The Companhia de Moçambique has an area of 59,840 square miles, which includes Manika and Sofala; and the Companhia do Nyassa an area of 73,292 square miles, which includes the region bounded on the west by Lake Nyasa, on the north by the Rovuma river, and on the south by the Lurio river.

(3) PUBLIC EDUCATION

A number of schools have been established under State, municipal, or other supervision.¹ There are also many schools maintained by various missions. Many teachers are natives. North of the Sabi, Mohammedan schools, where Swahili is taught, are fairly numerous.

¹ A list of the schools existing in 1914 (not of the numbers of scholars) is given on pp. 396-412 of the *Anuario Colonial*, Lisbon, 1916.

GENERAL OBSERVATIONS

The Portuguese Province of Mozambique has vast possibilities of development. In the north the Nyasa Chartered Company controls most of the trade, and proposes to construct a railway from the harbour of Pemba Bay to the shores of Lake Nyasa. Similarly in the country south of the Zambezi the Mozambique Company has control, and its territory is traversed by the Beira-Salisbury Railway. The region along the coast between Mozambique and the Quelimane river, known as the district of Quelimane, is to a great extent still under the power of Moslem chiefs. The southern territory is more directly under Portuguese control, the capital having been moved from Mozambique to the flourishing port of Lourenço Marques.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

THE Province of Mozambique is only fairly well supplied with means of communication, but is fortunate in the possession of numerous navigable waterways and several excellent harbours.

(1) INTERNAL

(a) *Roads*

Caravan routes from the coast regions and seaports to the far interior have existed for some hundreds of years, and have been in constant use by Arab traders ever since the days when Sofāla was a principal centre of Arab commerce.

Of recent years, good roads have been made in most of the districts. For instance, in the Shimoyo (Chimoio) region, in the territory administered by the Mozambique Chartered Company, some 80 miles of roadway have been constructed since 1914, bridges of stone and cement have been built over the rivers Munene, Inyamendoi, and Inyaminboi, the ravines have been filled and pipes laid to carry off surplus water. The native paths through the forests in this locality are well kept as a rule, and are sufficient for the transport by native bearers of considerable quantities of merchandise of all sorts, and also for the passage of the *machila* (or hammock slung on a bamboo pole), in which the European usually travels, borne by four or eight natives. In the dry region between the towns of Quelimane and Mozambique and towards the

borders of British Nyasaland, hard roads of easy gradient are being made to carry traffic to the coast. Through the forests new tracks are cut by the natives of each district, under the direction and supervision of their headman. Such tracks are laid out in accordance with a definite scheme, and divide the forest into sections. Farther south, the sandy surface, which prevails over the greater part of Inhambane, is a serious obstacle to road-making, and consequently to the development of this district.

Under modern conditions the old caravan and Arab trade routes tend to disappear, and, as the country develops, to be replaced by railways or motor roads. In many parts of the province, where there is no prospect of sufficient commerce and traffic to warrant the cost of laying out railway lines, the construction and maintenance of forest roads capable of bearing motor transport can be undertaken at comparatively low cost.

Speaking generally, however, the existing roads of Portuguese East Africa leave much to be desired. Lack of public funds and the distribution among chartered companies of territory and of the functions of government have together prevented the inception of a complete and considered scheme of road communications for the whole Province. The roads hitherto constructed have too frequently a haphazard character, serving limited local needs with various degrees of efficiency.

(b) *Rivers and Lakes*

Rivers.—Five principal rivers converge upon Delagoa Bay, and all of these are navigable for considerable distances by small craft and motor launches. The Maputo (Usuto) is navigable for 200 miles, the Tembe for nearly 90, the Umbeluzi for 24, the Matolla for 15,

and the Inkomati, which rises in the heart of the Transvaal, for 60 miles. The usual river-craft are sailing barges, dhows of the Arab type, and, near the towns and chief agricultural estates, small gasolene motor launches.

Between Lourenço Marques and the Zambezi lie the basins of the Limpopo, Sabi, Buzi, and Pungwe, all navigable rivers, besides many smaller streams. The Zambezi, the principal waterway of East Africa, runs through the province for between five and six hundred miles, and eventually finds its way to the coast through a large number of estuaries, including the navigable Chinde passage. The other main channels, varying in their lower course from 500 to 1,300 yds. in width, are rendered unnavigable for 50 miles from the sea by shallows and shifting sandbanks. Above the delta the Zambezi appears to be gradually silting up, and the small steamers which form the means of communication between Chinde and the lower Shire district of British Nyasaland find difficulty for some eight months of the year in navigating the main river and its tributary, the Shire. From a point 50 miles above Tete navigation is made impossible over a distance of 60 miles by the Kabroabasa rapids, but from Shikoa the river is again navigable up to and for some distance beyond the border at Zumbo.

The Likungo, Makuze, Moma, and many other rivers entering the Mozambique Channel between the Zambezi and the Rovuma are navigable for small craft and for river launches capable of carrying 150 or 200 tons of cargo. The possibilities of navigation on a number of these rivers, such as the Ligonya and Lurio, have not yet been fully ascertained.

Lakes.—For about 150 miles Lake Nyasa forms the western boundary of the Province, and being navigable over its whole length of 360 miles offers ample oppor-

tunities for traffic. Mtangula, the only good harbour in Portuguese territory, would probably become an important collecting and forwarding station if the railway from Port Amelia were carried through to this point on the lake; hitherto its trade has been insignificant. Lake Shirwa, on the border farther south, is shallow, and navigable only by small boats and canoes. The lakes along the lower course of the River Inyarrime, south of Inhambane, carry a quantity of local traffic. The other lakes of the province are of no importance for navigation.

In its slow-moving rivers, flowing lazily in their lower courses through valleys built up of their own alluvial deposits, the Province is fortunate to possess a number of natural waterways, which lend themselves to cheap and easy transport between the coast and the most fertile agricultural districts. Of these waterways the fullest advantage can only be taken when the bars which block the outlets of many of the rivers are removed or deepened by dredging. The harbours of Lourenço Marques and Beira are kept open only by the annual outlay of large sums of money upon the dredging of the channels and entrances. While it seems doubtful whether the expenditure requisite for similar operations in the case of estuaries elsewhere would bring in an adequate return, except perhaps at Quelimane, it is clear that the provision of cheap and convenient water-transport facilities, especially for bulky products such as sugar and cotton, is a necessary condition for the development of plantations situated at a distance from the coast.

(c) *Railways*

(i) *The System in General.*—The two completed railways of the Province seem to have been designed less for internal traffic than for transit or external trade

with the Transvaal and Rhodesia. Traversing the narrower portions of Portuguese East Africa they follow the shortest possible routes from Lourenço Marques and Beira to Pretoria and Salisbury respectively. The projected lines which are planned to run from Port Amelia to Lake Nyasa, from Mossuril opposite Mozambique Island to Lake Shirwa, and from Quelimane and Beira to the Central Africa Railway terminus at Chindio, while they would open up large tracts of the Portuguese Province, have a similar appearance of catering for the through trade of another British possession, Nyasaland. Purely domestic purposes, however, would be served by the proposed lines which are intended to connect Inhambane with Lourenço Marques and to run northwards from Quelimane.

The line from Delagoa Bay to the Transvaal has a length of 57 miles in Portuguese territory, and from Komatipoort on the border continues for 290 miles to Pretoria, making connexion with the railway system of the Union of South Africa. This is the most important railway line in the Province, with a heavy and growing traffic, especially in Transvaal coal. Excellent terminal accommodation is provided at Lourenço Marques.

A new line, starting from Lourenço Marques and intended to traverse Swaziland and link up with the Transvaal system, is being constructed, and has already been pushed on to Goba, about 7 miles from the Swaziland frontier. It is expected that when this line is completed express trains will make the journey from Johannesburg to Lourenço Marques in twelve hours. The line seems certain to add considerably to the over-sea trade through Delagoa Bay.

A district railway, which will eventually connect Lourenço Marques with Inhambane, branches off in a north-easterly direction from Moamba on the Delagoa

Bay-Transvaal line. A section of 55 miles, from Moamba to Shinavane, is now completed ; the following section, 70 miles in length, from Shinavane *via* Shissane to Shaishai, is not yet begun ; from Shaishai the line is laid for some 50 miles through Manzhakaze to Shikomo ; there is a further gap of 50 miles between Shikomo and Inyarrime ; then (between Inyarrime and Inhambane) there follow a section of 40 miles of track already laid and a final stretch of 15 miles now in process of construction.

Second in importance to the Lourenço Marques-Pretoria Railway is that which runs from Beira to Salisbury, a distance of 374 miles, and crosses the frontier at a point, between Massikessi and Umtali, 200 miles from Beira. This line is owned and administered by a British company. Although a moderate amount of ore from Rhodesia is conveyed to Beira for shipment to smelters in the United States, the total volume of traffic is not great ; the districts traversed are only moderately rich in agricultural and mineral resources, and inducements have hitherto been lacking for the outlay of much capital expenditure upon the railway.

The long-projected connexion between British Nyasaland and Beira might have been effected ere now, had the war not hindered construction. From a point on the Zambezi opposite Chindio, the southern terminus of the Central Africa Railway, the line is planned to run southwards for 170 miles to join the Beira Railway in the neighbourhood of Fontesvilla. Even after the completion of this railroad, goods in passage between Nyasaland and Beira will be subject to trans-shipment by ferry across the Zambezi until a bridge is built over the river. The concession for the construction of this bridge has been granted to the Central Africa Railway.

An alternative route from Nyasaland *via* Chindio to

the sea is contemplated by the projected line westward from Quelimane, which would not have to cross the Zambezi, and would, therefore, provide an uninterrupted passage from the coast. At Chindio it would join the Central Africa Railway line, which runs 62 miles north to Port Herald and there connects with the Shire Highlands Railway, whose terminus, 113½ miles distant, is Blantyre.

On the Quelimane line construction was begun some time ago, and it was anticipated that one hundred kilometres would be completed before the end of 1917. For a narrow-gauge branch railroad, running out *via* Inyamakura to Mkuba, the surveys have been completed and material supplied for 50 miles of line; it was hoped that the whole line would be open for traffic before the end of 1918. A light railway runs north-east from Quelimane to Makival.

Mossuril, on the mainland opposite Mozambique Island, is the starting-point of a railway planned to run westward for 280 miles in the district of Mozambique and 62 miles in the territory of the Companhia do Nyassa to a point on Lake Shirwa. About 13 miles of this line had been laid and the material for a further 19 miles had been ordered from Germany before the outbreak of war.

The preliminary surveys have been made for a railway from Port Amelia *via* Mtarika to Lake Nyasa, but efforts to form a construction company, though in 1914 they promised to meet with success, have been frustrated, or at least suspended, owing to conditions arising from the war. The distance from Port Amelia to Mtarika is 322½ miles, and to Lipuchi on the lake, 520½ miles. An alternative route, proposed in earlier surveys, had its terminus at Mtengula. The shortest and easiest route, however, would lead to a point on the British shore south of Lipuchi.

The construction of a light railway alongside the Kabroabasa rapids was suggested about fifteen years ago, and is revived from time to time. The purpose of the line would be to bridge the 60-mile gap between the two navigable reaches of the Zambezi in Portuguese territory and so to facilitate trade with the Tete and Zumbo region.

The total mileage of lines already laid in Portuguese East Africa is about 600, while the projected lines amount to an aggregate of some 1,200 miles.

(ii) *Ownership and Control*.—The most important line in the Province, that which runs from the capital, Lourenço Marques, to the Transvaal frontier, is owned by the Portuguese Government. It is well equipped with rolling stock and with terminal and goods accommodation, and by virtue of a reciprocal arrangement enjoys partial running powers for the conveyance of passengers and goods over the railway system of the Union of South Africa.

The second line of importance, from Beira to the Rhodesian border at Umtali, is owned and managed by a British company, and under a similar agreement has running powers over the Beira-Mashonaland Railway and the Rhodesia railway system.

The other railways, which are as yet mainly of local interest, are either State-owned or managed for a defined number of years by concessionaires, who have undertaken to build, equip, and maintain them, on the understanding that they will ultimately revert to the State. No subventions or kilometric guarantees have been granted by the Government, and every projected railway is expected to earn enough from its own net traffic receipts, not only to pay the cost of annual maintenance and equipment charges, but also to furnish an adequate interest return upon the capital invested.

(iii) *Adequacy to Economic Needs ; Possibilities of Expansion.*—The Portuguese Colonial Administration is quite alive to the fact that cheap and satisfactory means of communication are essential to the profitable development of the agricultural and mineral resources of the Province. In no instance has any properly formulated and adequately supported request for a concession for railway construction been refused a sympathetic hearing either by the local authorities at Lourenço Marques or by the Colonial Administration in Lisbon. The financial resources of the Province are slender, and the amount available for even the most urgent of public works is limited, but the authorities realize that capital prudently invested in developing the means of communication will earn not only the immediate profits due to improved facilities of transport and the growing volume of traffic, but also indirect returns in the form of increased agricultural production, more exports and imports, and greater revenue from duties and from other kinds of taxation. Accordingly, though unable themselves to initiate schemes of railway extension on a large scale, they are always ready to grant concessions for railways to groups of foreign capitalists who can prove their ability to carry out their undertakings. In combination with existing river-transport facilities, the railway schemes already sanctioned by the Government appear to be not only equal to the present requirements of the Province, but sufficient to provide for, if not to produce, a considerable expansion in agricultural and mineral output.

(d) *Posts and Telegraphs*

There is an adequate postal service throughout the colony. The number of post offices open in the districts administered by the State was 142 at the end of 1914. The Province is a member of the Postal Union, and

postal charges are on the usual scale. Lourénço Marques, which is a member of the South African Postal and Telegraph Unions, has the privilege of the internal postal rates for South Africa.

The telegraph system in 1915 included 3,397 miles of line and linked up the chief towns and stations of the Province. Lines running inland from Palma along the Rovuma river and from Port Amelia to Mtarika were laid more recently by the Portuguese expeditionary force.

Wireless telegraphy has recently been employed for military purposes in field stations in Portuguese Nyasaland. The experience thus gained may enable the authorities to determine the advantages of this as an alternative means of telegraphic communication throughout the Province in peace time.

(2) EXTERNAL

(a) Ports

Delagoa Bay.—The principal harbour of the Province is Delagoa Bay, on the shores of which is situated the capital, Lourenço Marques.

The bay is 22 miles broad and 26 miles long. Like all harbours on the coast of East Africa it has a series of sandbanks at the entrance ; unlike most, it has wide and deep channels. Cockburn and Hope Channels have depths of 25 and 29 ft. respectively at low-water spring tides, Polana Channel a minimum of 21 ft. The tidal rise in the channels varies between 4 and 7 ft. at neap tides, and between 9 and 11 ft. at springs ; it is 6 ft. at neaps and 10 ft. at springs in the joint estuary of the rivers Tembe, Umbeluzi, and Matolla. It is intended to redredge the Polana Channel in order to secure a minimum depth of 25 ft. at low-water springs.

The anchorage inside the Polana Bar is of considerable extent and depth. It has two further advantages : it is comparatively free from shifting sandbanks, and it is well protected from south-easterly winds by the peninsula and the island of Inyak.

The harbour is fitted with up-to-date equipment, and in loading and discharging facilities compares favourably even with Cape Town, Port Elizabeth, or Durban. The new ferro-concrete wharf is just under a mile in length, and is capable of accommodating twelve large steamers simultaneously along its deep-water front. There are ten sheds, each measuring about 200 feet by 100, for the reception of inward and outward cargoes, and, in addition, a transit shed and a national warehouse ; all sheds and wharves are lighted by electricity. The electric cranes erected for the handling of cargo are fifteen in number, including two of 10 tons capacity, one of 20, and one of 60. This last was described in 1914 as the largest travelling jib crane in the world. There are also nineteen steam cranes, one of which is of 30 tons capacity. Eight more electric cranes were on order in 1915.

The coaling and bunker trade in Transvaal coal at Delagoa Bay is yearly gaining in importance. The following statistics for five and a half years show, of course, the disturbing influence of war conditions :

TRANSVAAL COAL TRAFFIC THROUGH DELAGOA BAY

	1911.	1912.	1913.	1914.	1915.	Half-year 1916.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Local Consumption	20,810	23,766	30,791	24,844	30,557	9,328
Export and Bunker	114,131	364,597	662,292	575,680	495,172	311,760
Total	134,941	388,363	693,083	600,524	525,729	321,088

Coal storage bins were erected a few years ago, but

since the provision of more rolling stock they have not been in general use. In 1915 a most efficient and up-to-date coaling plant, a McMyler hoist, was placed at the western end of the wharf. This hoist, the installation of which cost £25,000 exclusive of foundations, has a loading capacity of 500 tons per hour. Up to October 31, 1916, it had loaded 252 vessels in all with 910,000 tons of coal.

The coal traffic through and from Delagoa Bay is likely to increase in the near future, the railway authorities anticipating a traffic of nearly 100,000 tons of coal monthly (46,000 tons for export and 54,000 for bunkers).

The port is well equipped with powerful tugs, and it is intended to purchase more of these. In his report for 1914 H.B.M. Consul-General McDonell stated that dredging operations throughout that year were handicapped by the loss of one of the port dredgers, the *Teredo*, but that arrangements had been made to procure a large new dredger of the *Frühling* type.

The harbour of Delagoa Bay is quite adequate to the economic needs, present and prospective, of the southern portion of the Province. The position it occupies as the natural gateway for the export and import trade of the Transvaal, and the excellent accommodation and the cheap and convenient coaling facilities it offers to steamers trading with the East, completely assure its commercial prosperity and hold out the promise of further extensive and progressive development.

Inhambane and Bartholomeu Dias.—Between Delagoa Bay and Beira are two small harbours, Inhambane and Bartholomeu Dias. The local produce exported is small in amount and consists for the most part of sugar and copra.

Beira.—After Delagoa Bay the most important

harbour in the Province is Beira, the principal port for the external trade of southern and of a large part of northern Rhodesia, and head-quarters of the administration of the Mozambique Chartered Company.

Beira Harbour lacks shelter from north-east gales and the other natural advantages enjoyed by Delagoa Bay, and its entrance channel requires constant and careful dredging. Various schemes for its improvement have been considered from time to time, but the construction of a deep-water quay, undertaken in 1911, was finally abandoned in 1915, on account of physical difficulties arising from the strong currents and heavy spring gales. Nor has a practical solution been found for the problem of deepening the bar, which at dead neap tides prevents the entry of vessels drawing over 23 ft. of water. The loading and discharging of cargo is, therefore, still subject to the expenses and delays incident to the employment of steam-tugs, lighters, and pontoons, and the harbour can scarcely be said to be wholly adequate to present-day requirements. Nevertheless, the trade which passes through the port is not inconsiderable. Imports of an annual value of about half a million sterling include agricultural machinery and bags, cement, railway and building material, provisions, wine, tea, and tobacco. Of exports from the Mozambique Company's territory the chief are sugar, maize, and mangrove bark; the shipments of sugar amount to 25,000 tons per annum, of maize and mangrove bark to about 10,000 tons each. A quantity of ore is shipped in transit from Rhodesia and the Belgian Congo to the United States.

Chinde (Shinde).—North of Beira, on the delta of the Zambezi river, lies the harbour of Chinde, which has served since 1892 as the outlet from British Nyasaland

and the rich agricultural district of upper Zambezia. Chinde has no wharves or accommodation for shipping ; the whole of its export and import traffic has to be conducted by means of lighters, and steamers even of light draught and small capacity are forced to lie at a distance of several miles from the shore. The completion of one of the projected railways from Beira or Quelimane to the Zambezi at Chindio (Shindio) would inaugurate a more convenient route, and would seal the doom of Chinde.

Quelimane (Kiliman).—The next harbour of importance is that of Quelimane, which, with Mozambique and Sofāla, has a history as a trading port dating back to the first Portuguese settlement nearly four hundred years ago. The port and town of Quelimane are situated some miles from the sea up the river. The entrance presents several navigation difficulties for steamers of moderate draught. The bar is shallow and shifting, and the main navigation channel is subject to strong currents and flanked by treacherous shallows and sandbanks. The channel is, however, well-buoyed, and the entrance to the harbour could be much improved by dredging. The port is not equipped with modern loading or discharging appliances, but steamers of two or three thousand tons can lie off the town mole at a distance of fifty to a hundred yards, and loading is effected by barges and lighters towed to and from the shore by gasoline launches. The commercial development of the back-country of Quelimane, which is the richest agricultural section of the Province, is dependent on the improvement of harbour facilities, the construction of good roads through lower and upper Zambezia, and the completion of the Quelimane-Shire Railway or the Mutu Canal to the Zambezi.

The existing export trade, which in 1916 had a value exceeding £130,000, consists principally of ground-nuts,

coffee, sugar, and copra, and is capable of great development if proper shipping facilities could be provided. In the meantime all produce has to be conveyed in small coasting steamers to Mozambique or Beira, and there trans-shipped into ocean-going steamers. The commercial possibilities of Quelimane have in the past been neglected by all except the Germans, who, before the war, were gradually acquiring a monopoly of the local trade and shipping.

In view of the gradual extension of sisal and coco-nut plantations and the increasing quantities of fibre and copra shipped by the Companhia da Zambesia and the Companhia de Boror, the improvement of Quelimane Harbour will become a matter of urgency within a short time.

Parapat (Angoche, Angosh).—About 180 miles north of Quelimane and some 60 miles south of Mozambique Island, there is the small harbour of Parapat or Angoche. It lies on a difficult channel, and navigation is dangerous on account of constantly shifting sandbanks. Only steamers of small capacity and light draught can navigate the channel from the open sea, and even the local pilots frequently find themselves at fault on account of the rapidity with which new sandbanks form. The trade of Angoche is of no great extent, the principal articles of export being ground-nuts, mangrove bark, copra, and native produce. The economic and commercial possibilities of the country behind Angoche are not such as to warrant the expenditure of much capital in improving its harbour or providing better shipping facilities.

Mozambique Island.—The island of Mozambique, the former seat of government of the Province, lies at a distance of about 8 or 9 miles from the mainland, and has a good deep-water anchorage; but the harbour possesses only a primitive mole, and all cargo has to

be loaded or discharged by barges and lighters. The importance of Mozambique lies in its serving as a collecting station for the coastal trade of the district. The projected railway, starting from close to Mossuril on the mainland and crossing the back-country to British Nyasaland, will undoubtedly develop the agricultural resources of this part of the Province, but the railway traffic will always be handicapped by the remoteness of the anchorage on Mozambique Island, and cargoes will always be subject to the expense of transshipment by lighters.

Port Amelia.—Some way north of Mozambique Island, at Port Amelia, in the territory administered by the Companhia do Nyassa, lies one of the finest natural harbours on the whole coast of East Africa.

Pemba Bay has an entrance over a mile wide and expands within to a basin some 9 miles long and 5 miles broad. There is shelter from all winds, and deep water extends almost to the shore, so that large vessels can anchor close in.

The town of Port Amelia, surrounded by woods and fertile plain, is singularly free from mosquitoes, and consequently almost immune from malaria. It has unfortunately been visited from time to time by severe cyclones, such as that which in 1914 destroyed the greater part of the buildings and Government offices..

Various projects have been considered by the Companhia do Nyassa for developing the harbour and making wharves and roads, but up to now lack of the necessary funds has prevented the carrying out of any large scheme. When the railway to Lake Nyasa is constructed and the agricultural resources of the company's territory are turned to account, Port Amelia will doubtless attain a position of considerable importance.

Ibo.—North of Pemba Bay is the old trading port

of Ibo, which is losing in importance owing to its proximity to Port Amelia. It is also too shallow for modern needs and is suitable only for trading dhows.

Other Harbours.—In addition to the harbours already mentioned the Province contains a number of ports whose natural advantages make them capable of development for purposes of coastal trade. Between Delagoa Bay and Beira are Bazaruto Bay, Shilwan Island, Boene Harbour, and Sofāla Bay. From Quelimane northward about a dozen natural harbours occur; mention may be made of Moma river, with deeper anchorage than Angoche; Mossuril Bay, opposite Mozambique Island; Condúcia Bay, with protected anchorage in 5 to 9 fathoms within the river; Memba Bay, containing Bocage (Bokazh) Harbour and Port Duarte Pedroso; Sangone Bay, roomy and secure; Lurio Bay, with depths of 5 to 15 fathoms, but insufficient shelter from prevalent winds; Arimba, a sheltered harbour for small vessels; Mazimbwa (Mocimboa) Bay, capacious and well sheltered; and Tunghi Bay, with depths of 4 to 10 fathoms. Mokambo Bay, adjoining Mossuril Bay, and Fernão Veloso Bay, some distance north, have abundant accommodation even for ocean-going vessels. The former is a better harbour than Mossuril Bay or Mozambique; it has a broad and deep entrance, and spacious anchorage in 10 to 15 fathoms. Fernão Veloso Bay is a specially good harbour, well sheltered from southerly winds and with anchorage in depths of 8 to 12 fathoms.

(b) *Shipping Lines*

Of the three administrative units of Portuguese East Africa, it is to the Nyassa Company's territory that the smallest volume of maritime trade falls. Its chief harbour, Port Amelia, was visited in 1914 by 88 vessels,

of which 53, of 64,121 tons, were Portuguese, 19, of 161,641 tons, British, and 16, of 99,204 tons, German.

The volume of shipping trade with the Mozambique Company's territory is indicated in the figures for Beira, shown in Table IV of the Appendix.

The territory administered by the State possesses the chief harbour of Portuguese East Africa—Delagoa Bay (with the capital, Lourenço Marques)—through which passes a volume of trade second indeed in value of exports to that of Beira, but far surpassing the import trade of other harbours and completely dwarfing the transit trade of Chinde and even of Beira. Table III in the Appendix shows the number of vessels entering Delagoa Bay in recent years, with the tonnage of cargo discharged and shipped. The shipping totals for the State-administered territories are given in Table V. The value of the trade passing through each of the chief harbours of the Province is shown in Table II.

The volume of shipping visiting Portuguese East Africa may best be gauged by the Lourenço Marques returns. In the five years, 1912–16, the numbers of ships visiting Delagoa Bay were 696, 784, 680, 542, and 729 respectively. Great Britain's share of the shipping was 403 vessels in 1913, 422 in 1916; in the same years Portugal supplied 246 and 224 respectively. The service of Scandinavian ships was well maintained after the outbreak of war. Dutch and Japanese vessels increased in number from 1 and 3 respectively in 1915 to 21 and 22 in 1916. The regular service of passenger and cargo steamers from Japan to East and South African ports aims at taking advantage of special commercial opportunities, but in general the increase in 1916 in the number of vessels calling was due less to extension of trade than to the diversion of steamers to the Cape route in

consequence of enemy submarine activities in the Mediterranean.

The principal British lines serving Lourenço Marques in 1913 were the Union-Castle, Aberdeen, Clan-Ellerman-Harrison, Natal, Bucknall, Houston, and Prince Lines. The Union-Castle vessels maintained a service from Southampton to Delagoa Bay and Beira by both east-coast and west-coast routes. Regular visits were made to both ports by the vessels of the Clan-Ellerman-Harrison joint service sailing from Glasgow and Liverpool, and by those of the Natal (Direct) and Aberdeen lines from London.

Trade with India was carried on by the Natal (Direct) Line as well as by the British India service to Bombay and the Indian-African service to Rangoon and Calcutta. With America connexion was made by the Bucknall, Houston, and Prince steamers, all calling at New York. Messrs. Crosby & Co., Currie & Co., and Howard Smith & Co., supplied the requirements of Australian trade.

The Portuguese National Shipping Company has the mail contract between Portugal and the Portuguese colonies in south-west and south-east Africa, and maintains a regular service of passenger steamers, which run from Lisbon *via* Madeira and the ports of Angola, to Cape Town, Lourenço Marques, Beira, Mozambique, Port Amelia, and Cabo Delgado. This company, the *Empresa Nacional de Navegação*, also maintains a service of small coasting steamers which ply regularly between Lourenço Marques and all the small harbours of the Province.

The foreign lines which served Portuguese East Africa before the war were the Hansa, Woermann, and German East Africa, the Scandinavian-South Africa, and the Swedish-South Africa Lines. To these were more lately added the Nippon Yusen Kaisha and the

Scandinavian-East Africa Line, while the vessels of the Netherlands and Rotterdam Lloyd Lines were temporarily diverted from their regular route *via* the Suez Canal, and called at Lourenço Marques.

(c) *Telegraphic and Wireless Communications*

Wireless.—There are wireless installations at Delagoa Bay, Inhambane, and Mozambique Island. A proposal to develop the wireless communications, internal and external, of the Portuguese possessions on the west and east African coasts, and to connect Angola with Mozambique, is now receiving consideration. The communicating stations between the two provinces would be Kakengi and Zumbo, posts on the Zambezi on the western and eastern frontiers of Rhodesia.

Submarine Cable.—The Eastern Telegraph Company maintains a submarine cable service up the east coast of Africa, and by its agreement with the Portuguese Government has stations at Lourenço Marques, Beira, Quelimane, and Mozambique Island. From Delagoa Bay the cable runs south to Durban, and from Mozambique northwards to Zanzibar. From Zanzibar cables connect with northern Africa, Europe, and America, India and China, Australia and New Zealand; from Durban land lines intersect all South Africa, and from Cape Town cable communication is carried on with the west coast of Africa and with Europe.

Continental Telegraph System.—The Government telegraph service not only links up the head-quarters and principal stations of the various local governments, but, by the lines which follow the railroads from Lourenço Marques and Beira, connects the Province with the Union of South Africa and with Rhodesia and the Congo. The African Trans-continental Telegraph system runs from Chinde to Blantyre, Lake

Nyasa, Fife, Abercorn, and Lake Tanganyika, with offshoots to Fort Jameson, to Tete, and from Tete to Zumbo and to Umtali.

(B) INDUSTRY

(1) LABOUR

(a) *Supply of Labour ; Emigration and Immigration*

The industries of the Province are not yet so organized and developed as to require a great volume of labour, and consequently the native population, estimated at 2,800,000, is sufficient for present needs, labour, generally speaking, being cheap and plentiful. The employer, however, is not exempt from vexations and difficulties, for the plantation labourer, even when, after earning the amount of his hut-tax, he has overcome his constitutional reluctance to do any further work, has a habit of choosing the months when the main ploughing and cultivation for the year are in progress to absent himself and hoe his own garden.

An artificial scarcity is met with in districts where labour is recruited for other territories. In pre-war years there were on the average 100,000 natives of Portuguese East Africa employed on the Rand mines and in Rhodesia. The withdrawal of such a large amount of labour may to some extent have impeded internal development, but as the country itself failed to supply enterprises on which the labour could be usefully employed, the temporary absence of the natives was less than usually open to objection. Some disturbance of family life and weakening of tribal custom and authority probably took place, and there may have been some contamination from the undesirable elements of the Rand and other communities, but

the general impression is that the natives came back with a wider outlook, and were morally none the worse for their year (or more) of regular work and discipline. The opportunity of earning high wages and saving sufficient to establish them on their return in a position of affluence in their villages was eagerly embraced by four-fifths of the young men; plantation work was disparaged and the stay-at-homes were somewhat despised for lack of enterprise. The natives were well fed, well looked after, and eventually repatriated by the Witwatersrand Native Labour Association. They sent remittances approximating to £20,000 per annum from Johannesburg, and on their return brought very substantial sums of money into the Province.

Recruiting for the Rand mines was at no time permitted in the territory of the Mozambique Company or in the *prazos*¹; but under the Mozambique Treaty, concluded in 1909 between the Portuguese and Transvaal Governments, and ratified and continued by the Union of South Africa in later years, sanction was given for the recruiting of natives from all other parts of the Province. The high death-rate among natives from the northern regions led in 1913 to the restriction of recruiting to the districts south of lat. 22°. The Mozambique Government is paid an emigration fee of 13s. for each native recruited for the Rand; a repatriation fee of 10s. for each year of absence is payable by every returning native.

Meanwhile the natives of the northern territories have received a form of compensation for the loss of their opportunities on the Rand, for the Portuguese authorities have latterly canvassed these districts for labour for the sugar plantations farther south and for the cacao plantations in the island of San Thomé.

¹ See *infra*, pp. 74-5.

Within the Province the interests of native labourers, both domestic and recruited, are cared for by native commissioners, who investigate and adjudicate upon grievances brought to their notice. Protected by such safeguards, the natives accept service readily, and, when treated with firmness and sympathy, work sufficiently well to earn their wages. The chief labour areas are the Mozambique Company's territory, the neighbourhood of Quelimane, and the Zambezi valley. A scarcity of labour used to be experienced on the Zambezi sugar plantations, where 15,000 natives were required, but this shortage, if not already removed by the restriction of recruiting, could probably be remedied by action on the part of the *prazo* companies, which administer districts containing a population of half a million.

The emigration of the natives of the Province, conducted under the conditions described above, is now practically balanced by repatriation at the conclusion of contracts, so that there is no marked loss of population nor, in the absence of specially attractive opportunities, is there any appreciable influx of immigrants, white or coloured.

(b) *Labour Conditions*

The rates of pay on plantations vary greatly throughout the Province. On the *prazos* in the Quelimane district the average wages before the war were 8s. 6d. per month for men, 4s. 6d. for women, and 3s. 3d. for children. The highest wages were paid in the neighbourhood of the towns, such as Lourenço Marques and Beira, where municipal rates, taxes, and licences raise the cost of living for natives as well as Europeans. At Inhambane, for instance, the wages were only half those in Lourenço Marques, while in the north, from Angoche to the Rovuma river, the wages paid were still lower, averaging in some localities 1s. 3d. to 1s. 6d.

per week for men, and 10*d.* to 1*s.* for women, who provided their own food. Plantation owners generally complained that in districts where the recruiting of natives for the Rand was still permitted the effect of the high rates of pay offered for work on the mines was to keep plantation wages at too high a level.

(2) AGRICULTURE

(a) *Products of Commercial Value* ✓

General.—In Portuguese East Africa, as in all tropical and sub-tropical countries, there is an essential, if obvious, distinction to be drawn between native and European agriculture. It is a distinction in point of quantity, of methods, and of products. The investment of relatively vast capital compels the European to work on a larger scale and employ numbers of labourers, usually men, but sometimes women and children ; if he has European assistants he uses them as overseers for sections of his labour force or supervisors of the more technical processes. As a capitalist he is able to import and employ the agricultural machinery manufactured in Europe or America for tilling the ground and for treating plantation produce, knowing that thereby he will save labour and obtain better results. The products to which he devotes his attention are only such as have recognized value on the European markets, and are usually other than those which the native cultivates for the satisfaction of his few wants and primitive tastes. The native prepares his little garden by cutting down and burning the vegetation which occupied the site, cultivates it with the hoe, plants small crops of millet, maize, pumpkins, and gourds, varieties of beans and peas, sweet potatoes and manioc, and grows sufficient quantities for the needs of his household. Incentives to a further measure

of agricultural industry are supplied by the pressure of the yearly hut-tax, payable wholly or partly in the form of agricultural produce, and by the attractions of the Indian merchant's store, where millet, maize, oil-seeds, and bees-wax may be bartered for cloth or beads or wire. Even at their maximum the efforts of the native who works for his own hand have little significance beyond the maintenance of his family and the payment of his tax. This contribution to the common good, though by no means negligible, ranks low beside that of the plantation labourer, who, in producing his quota of, for instance, three or four tons of sugar per annum, equally well maintains his family, cultivates more thoroughly a much greater portion of the land, enriches his country through the trade and the returning capital created by his labour, and increases the world supply of necessary food-stuffs or raw material for industries. The economic value to the country of the European cultivator is still greater, varying in proportion to the amount of capital prudently invested, the number of labourers usefully employed, the value of the resultant products, the investment of profits in further enterprise, and finally the influence of an example of energy and of successful experiments in new cultures or new methods.

The Portuguese authorities have not hitherto attempted on any considerable scale to stimulate native agriculture by a system which has elsewhere produced good results without unduly depleting the labour supply. The Government of the Uganda Protectorate encourages the natives to grow cotton on their own plots, issues seed every season, and employs skilled instructors to inculcate correct methods of cultivation. The most eminent example of the success of such a system is found on the Gold Coast, where the efforts of native growers produce an annual crop of

70,000 tons of cacao beans. And in territory not very distant from Portuguese East Africa certain tribes of the Upper Congo districts were able recently to supply General Northey's column with a surplus of 18,000 tons of rice grown at the special request of the Government. The conditions for the successful use of free native labour on these lines are that the crops grown present no special difficulties of cultivation, and command a certain sale at a reasonable minimum price, under a Government guarantee if possible. The second of these conditions seems to imply the restriction of choice to foods such as maize, rice, and oil-seeds, or to the raw materials like cotton or flax, which are required for great industries and for which the demand is constant and not likely to be oversupplied.

In their East African territories the Portuguese possess a great tract, nearly 300,000 square miles in area, of very high potential value. The range of agricultural possibilities includes almost all varieties of tropical and sub-tropical products. There is a large supply of native labour, and a fairly heavy rainfall in most districts; there are also numerous perennial rivers, and large stretches of fertile loamy soil and of upland pastures. The richest portions are the lower valley of the Zambezi and the district west and north-west of Quelimane, but farther south the more temperate climate, especially in the higher inland districts, has attracted a larger number of settlers, interested in the growing of maize, sugar-cane, and sisal. The present export of agricultural products amounts to less than £1,000,000 in value, but this figure is likely to be largely exceeded in the future.

Sugar.—The principal agricultural product is sugar, which accounts for more than half of the total value of exports from the Province. The greater part of the sugar produced comes from the territory administered

by the Mozambique Company, and is shipped through Beira. In 1913, 23,948 tons were exported from Beira, as against 4,563 tons from Lourenço Marques. In 1916 Beira contributed 21,830 tons out of a total of 28,280 tons from the Province.

In recent years, and more particularly since the outbreak of the European War, the substantial profits earned by the planters have led to a large increase in the acreage under sugar-cane. In 1911 there were only seven sugar factories in the whole Province—three on the Zambezi, two on the Buzi river, one at Inhambane, and one at Inyamakura, near Quelimane. Since then the number of factories has more than doubled; the acreage devoted to sugar-growing has been nearly trebled, and the annual output is now calculated at 35,000 tons, of which 25,000 tons is produced by the Sena Sugar Company.

Sugar cultivation is practised on a small scale by natives, who chew the cane. The European companies, which grow the cane and manufacture sugar, employ powerful steam ploughs during the dry season to turn over and prepare the hardened ground for planting. The usual practice is to ridge the ground in ploughing and lay the plants flat in the furrow under two inches of soil, afterwards earthing them up in course of weeding. The alternative method, followed when the ground is not ploughed, is to insert the plants upright in the ground or at a slight slope; the eyes, it is claimed, are thus placed beyond the reach of the borer insect. The growing plants are kept free of weeds by manual labour, and are irrigated as may be necessary; the water on some plantations is pumped from the river near by and led into the planted rows by a system of channels, which serve also to lead off flood water after the occasional heavy rains. The operations of cutting and crushing the cane and manu-

facturing the sugar present no exceptional features. Spirit is distilled from the molasses by one or two of the companies.

A question of the first importance to sugar-planters and one which has given rise to much debate is the choice of the best variety of sugar-cane to cultivate. In Natal the favourite variety, best suited to the local conditions of soil, temperature, rainfall, and water-supply, is the Yuba cane, which there, as in Portuguese East Africa, has a prolific growth and a prolonged ratooning life, and is eminently suitable for free and open soils or unirrigated land. The cane, however, is hard and of small diameter, and therefore requires more powerful crushing machinery, and the juice extracted contains a relatively high percentage of impurities, though after special treatment it yields a very fine white sugar. The more luscious canes, moreover, give better crops than Yuba on the heavy alluvium common in Mozambique, especially where irrigation is practicable. Of some forty varieties now being cultivated, the most popular, after Yuba, are Green Natal, Lusier, and several Mauritius and Tanna species.

In seeking to increase output, sugar-planters have in the past aimed almost exclusively at extending the area under cultivation. The method involves additional labour and transport, and the results it gives might in many cases be more easily and economically obtained by the irrigation and more thorough cultivation of a smaller area. An instructive experiment conducted with Yuba cane at Inyanguvo on the Buzi river showed that, as a result of merely cultivating between the rows in two fields, production increased from an average (for the rest of the estate) of 38.6 tons of cane and 2.83 tons of sugar per acre to 60.9 and 70.8 tons of cane, yielding respectively 4.46 and 5.1. tons of sugar.

Maize.—The cultivation of maize has made notable progress in recent years, especially in the territory of the Mozambique Chartered Company. A large tract of country between Massikessi and the coast plain has proved suitable for maize-growing, and settlers are readily taking up farms for this purpose. The advance in production is shown by the returns of maize exported from Beira; the figures were 2,325 tons in 1912, 6,673 in 1913, 9,745 in 1914, and 9,100 in 1916. Cultivation has been stimulated in the last few years by the action of the Portuguese Government in commandeering the whole export for European consumption, and by the satisfactory system of grading and testing instituted at Beira in 1914 by the maize expert of the Mozambique Company.

The maize exports from Lourenço Marques show unexplained fluctuations from 1,133 tons in 1910 to 1,101, 6,400, and 338 tons in the following years. In 1916, 868 tons were exported from Lourenço Marques, and 4,932 from Mozambique.

Maize is freely cultivated by natives in various localities all over the Province, but in the Inkomati valleys the native maize plots are specially extensive, and in some cases continuous over areas of several hundred acres.

Coco-nut Palms.—The chief copra-producing district of the Province is the coast near Quelimane, from which an annual export of about 4,000 tons has been recorded in the last few years. Coco-nut palms are found also along the bay at Mozambique, at Angoche, and in the Matadane Concession. Coco-nut palms will not grow at a distance of more than 10 kilometres from the sea, and of the coast-belt of the Province the southern portion, with the possible exception of parts of Inhambane, is not warm enough, so that it is only in and north of the Zambezi delta that the palms really

flourish. Even there, however, the yield of the trees appears to be comparatively low, both in number and in size of nuts, and the opinion has been expressed that Portuguese East Africa is not a really favourable field for coco-nut growing.

Many of the trees in Quelimane, originally owned by natives and subsequently purchased by the *prazo* companies, were found to have been planted in land which is liable to be water-logged, and therefore apt to prevent or limit production. Attempts to remedy this fault by draining have been made in the old plantations at Quelimane, and care is now taken by the Madal, Zambezia, and Boror Companies to select drier soils in laying out their new plantations. Considerable damage is wrought by the cyclones which occur from time to time on the east coast, for, even when it does no permanent injury to the trees, a cyclone may cause the loss of the crop and growth of a season.

The methods followed in the Province for propagating, planting, and cultivating coco-nut palms present no remarkable features. For the germination of the nuts the usual practice is to prepare nurseries with trenches eight or nine inches deep, in which the nut is placed with a covering of some two inches of soil. After a period of eighteen to twenty-four months the young plants are removed to their permanent places in the plantation and set out at spaces of eight or nine metres. The surface round and between trees is cultivated in circles widening with the growth of each, until the whole plantation area is clear of weeds and bush. During the earlier years of growth the palms are shielded from the excessive heat of the sun on the north by their low-hanging fronds, and the practice of cutting these away for convenience of cultivation is therefore to be deprecated.

Sisal Hemp.—The most important agricultural in-

dustry after sugar-cane and coco-nuts is sisal, which was introduced from German East Africa about 1910, and was planted experimentally by the Zambezia and Boror Companies. The experiments have proved thoroughly satisfactory, and there are now over 11,000,000 plants in cultivation in the Quelimane and Zambezi regions. In 1916 there was an export of 2,200 tons of fibre, almost all of it shipped from Quelimane.

Sisal requires a light but good soil, not exhausted by previous crop cultivation. For the proper preparation of the fibre for export it is necessary to have a plentiful supply of water (preferably running water) on the plantation in close proximity to the decorticating factory.

The usual method of planting in Portuguese East Africa is to prepare nurseries and plant them thickly with bulbils. The bulbils are found in great numbers round the flowering stems, known as poles, which the sisal plants throw up in their last year of growth. The East African sisal plant grown from bulbils poles in its seventh, eighth, or ninth year, and perishes immediately after poling. After twelve or eighteen months in the nursery the young plants, selected so as to be as nearly as possible of equal size and habit of growth, are moved into their permanent quarters in the plantation proper. The spacing varies on different plantations. The standard most commonly adopted in the Province is 2 metres by 1.75, as compared with a spacing of 2.30 by 1.50 usually practised in Tanganyika. The wider spacing is probably preferable, as more light and air are thus admitted to the plant and weeds are more easily kept in check.

The Portuguese planters and agricultural experts prefer to plant from bulbils, whereas before the war planters in both German and British East Africa had

taken to planting out the suckers which form during growth at the base of every developed sisal plant. The advantages claimed for propagation from suckers are that labour and expense are saved by this method of replenishing the plantation, that the young plants are more certainly true to the type of the parent, and that they take a year less to mature their growth and reach the cutting stage. Suckers, however, have the disadvantage of growing irregularly, and they frequently pole immediately after the first cutting of leaves and simultaneously with the parent plant. In this case the planters lose the whole of the customary yield over three years at least, and their experience has convinced them that the longer and more expensive process of growing from bulbils is likely to give the more reliable results and the larger profits in the end.

When the young plants have once been set out in suitable soil, the upkeep of a sisal plantation is inexpensive. All that is necessary is to see that it is kept free from weeds, and that new fields are prepared and cultivated, in order to replace exhausted sections and to maintain the supply of leaves for the mills.

Before the war nearly all the machinery for decorticating and preparing sisal was produced either in Germany or in the United States of America, but several British firms have recently been manufacturing machines which appear to mark an improvement, both in economy and in efficiency, on the American and German decorticators. The initial cost of installation of a thoroughly efficient scutching and cleaning mill may be calculated at rather more than one-third of the total cost of laying out a sisal property. A convenient unit for the calculation of expenses is an estate of 2,000,000 plants, such as has been laid out on the Matadane Concession, near Angoche. This will be

equipped with either Robey's or Bridges' decorticating machines, and the total cost up to the producing stage, including a Decauville light railroad throughout the plantation, is estimated to be £26,000.

The total cost of production of a ton of dressed fibre in Portuguese East Africa before the war averaged £14 per ton, and the average f.o.b. selling price was £23 per ton. During the years of war very much higher prices have been offered, first grade fibre selling in 1917 at £84 per ton in London. Shipping difficulties have prevented planters from reaping the full benefit of this advance.

The other fibre-producing plants—*Mauritius hemp*, *ramie*, and *sansevieria*—have been shown by experience to be less suitable for cultivation, and have been practically abandoned in favour of sisal. *Kapok*, however, seems likely to reward the efforts of the enterprising planters who have grown it experimentally in the northern parts of the Province.

Cotton.—The cultivation of cotton in Portuguese East Africa can scarcely be said to have advanced beyond the experimental stage, although in Zambesia the year's output had increased from 678,720 lb. in 1913 to 1,536,640 lb. in 1916.

The Colonial Administration at Lourenço Marques and the Mozambique Company at Beira have conducted experiments in recent years to discover which variety of cotton is best suited to local conditions. West African and Egyptian varieties have been rejected, apparently because the harvest season is insufficiently hot and dry to ripen the seed. On the Shire river the long-staple Nyasaland Upland cotton has proved successful in the plantations of the Zambesia Company. The dry belt of the Mozambique district is said to offer conditions favourable for cotton, but transport is difficult and the country wholly undeveloped, and to

these handicaps is added the risk of heavy loss through blight and insect pests.

Tobacco.—The export of tobacco from British Nyasaland has in the last four or five years averaged 3,250,000 pounds in weight and about £90,000 in value. This output is roughly twenty times greater than the export from Portuguese East Africa, which contains vastly greater areas apparently well adapted to the culture of standard varieties. The best tobacco in the Province is grown in Upper Zambezia, in the Inhambane district and in the Umbeluzi valley ; considerable quantities are produced in the Tete district and Quelimane. Small plots are cultivated by the natives in many districts, especially along the Zambezi, but the *prazo*-holders seem hitherto to have somewhat neglected the opportunities offered by this culture. Flue-curing instead of air-curing is essential for the preparation of tobacco intended for sale in European markets, and it may be that the difficulties and expense of the process are sufficient to discourage enterprise. In pre-war days the tobacco exported from the Province was consigned to Portuguese possessions and to the Union of South Africa ; it had apparently no market in Europe.

Rubber.—The forest areas of the Province contain large quantities of different varieties of rubber-yielding *Landolphia* vines. At the time when rubber was fetching high prices in the European and American markets, these rubber forests were exploited, the vine stems and roots being collected by natives and afterwards treated by machinery. The extracted product was sold in England and America as third or fourth class rubber, and yielded a small profit over cost.

In consequence of the extensive production and present low costs of the high quality plantation rubber cultivated in Ceylon, Java, and the Malay States, and the lower prices ruling in both Europe and the United

States, the collection of wild rubber from vines has become unprofitable and has practically been abandoned.

Experimental plantations of Pará rubber (*Hevea brasiliensis*) have not proved successful in Portuguese East Africa, for while the trees grew fairly well the yield of latex was so unsatisfactory that cultivation was carried on at a loss.

Ceará rubber (*Manihot glaziovii*) grows well in the district of Mozambique, but the rainfall is too small to produce a profitable yield. The long dry season reduces to six months or less the period during which tapping can be carried on, and even during this period the rubber beads out and will not flow properly. The rubber from Ceará trees is always inferior in quality to Pará rubber, and, in view of the uncertainties and difficulties of cultivation, the growing of plantation rubber is not likely ever to be a profitable industry in the Province of Mozambique.

Oil-seeds.—Of the different varieties of oil-seeds, which are cultivated by natives exclusively, ground-nuts receive most attention in all parts of the Province; an export of 7,362 tons was recorded for 1916. Near Inhambane the *Trichilia emetica*, called *mafureira* by the natives, grows profusely, but only a small fraction of the whole crop is actually gathered and exported, the natives selling it to the Inhambane merchants for 30 reis per kg., a price nearly equal to three farthings per pound. The principal obstacle to the development of this branch of agriculture is the difficulty of transport over the sandy roads of the district.

Other varieties of oil-seeds are castor oil, coco-nut, sesame, and cotton seeds, all of which contribute to the export trade of the Province. Two other species, the cashew nut and the *jikungu* or *mkweme* (*Telfairia pedata*), are now beginning to be systematically culti-

vated. The seeds of these nuts are worth £7 or £8 per ton at Inhambane, but as they are protected by particularly tough hard shells, they present special difficulties of treatment, which have only recently been overcome by the invention of a simple and effective decorticator. Telfairia yields an oil suitable for soap-making; the cashew-tree is said to be potentially useful, not only for its oil, but, among other derivatives, for a spirit which can be distilled from its fruit, and would be suitable for internal combustion engines.

Mangrove Bark.—Large quantities of bark for tanning are obtained from the red mangrove trees growing in the creeks along the coast. Mozambique, Beira, and Quelimane in 1916 exported close on 17,000 tons. Black wattle has not yet been cultivated on a commercial scale.

Fruit.—A large range of tropical and sub-tropical fruits is found in all parts of the Province, including bananas, mangoes, guavas, custard-apples, avocado pears, pine-apples, persimmons, peaches, loquats, oranges, naartjes, lemons, and water-melons. These, as well as the grapes grown in the Lourenço Marques district, supply local markets, but there is no recorded export.

Live-stock.—The prevalence of tsetse-fly over large portions of the colony and the ravages of rinderpest and of East Coast fever make stock-raising a precarious investment. Angoni cattle are numerous near Lake Nyasa, while European breeds (chiefly Hereford, Friesland, and Shorthorn) have been introduced in the lower Zambezi country, in the higher levels of Manikaland, and in the Lourenço Marques district, where a number of promising herds have been established for dairy and slaughter purposes. No part of the Province has been found suitable for horses. Mules and donkeys are useful for transport, and are much hardier than

horses here, as elsewhere in hot climates. Draught animals, however, are far from numerous, and their scarcity is a serious handicap to agriculture. Sheep and goats of the native breeds are generally plentiful, and pigs are kept in most localities. Fowls and pigeons are found everywhere, and turkeys and guinea-fowl are common.

Game.—The big game of the Province includes elephant, lion, leopard, hippopotamus, rhinoceros, giraffe, buffalo, gnu, zebra, and many varieties of antelope. The authorities have taken the usual measures for preserving game by enforcing game licences and close seasons and marking off game reserves.

(b) *Irrigation*

Water is pumped from the Zambezi on to the large sugar plantations along the river-side. Apart from this, irrigation seems nowhere to be utilized on any large scale, even for the cultivation of rice. As the difficulties of navigating the Zambezi are increasing, and the construction of the Mutu Canal from the river above Mopeia to Quelimane is now under discussion, a subject deserving consideration is the possibility of a more extensive use for irrigation purposes of the water of the lower river. It is said that irrigation might be usefully employed in the valleys of the Inkomati, Sabi, Olifants, Limpopo, and other southern rivers.

(c) *Forestry*

A large proportion of the surface of the Province is wooded. The scrub, thorn-bush, and low forest of the drier regions are of little economic value, but the forests which clothe the river valleys and the uplands of Quelimane and Mozambique districts contain large and serviceable trees. Among the most useful varieties

are 'African rosewood' or camwood (*Pterocarpus erinaceus*) and *pau ferro* or ironwood (*Brachystegia spicaeformis*), both widely distributed. In the Zambezi forests there are a score of good timber trees, including 'African mahogany' (*Khaya senegalensis*), the *mwan-gele* (*Adina microcephala*), teak (*Oldfieldia africana*), and the *parinariums*.

Unfortunately, the larger timber trees seldom grow close together or near to navigable waterways, so that there is small chance of developing a lumber industry, and the forests are valuable, in the opinion of Mr. Lyne, chiefly as a means of providing planters with timber and fuel for domestic use and natives with building material, fuel, cordage, and bark cloth. A variety of heavy black wood (*Dalbergia melanoxylon*), called *pinkie* by the natives, who bring it in for sale to local merchants, was exported before the war to Marseilles and Hamburg. The selling prices of this wood were subject to the operations of a ring of exporters and buyers, who thereby contrived to control the market and stifle competition.

(d) Land Tenure ✓

(i) *State Ownership*.—The Portuguese Colonial Land Law regards as State property all land not as yet owned by individuals or by collective bodies, and expressly reserves for the State not only mineral and forestry rights, but all land required for the public services, all islands, islets, and mud-banks on the sea-coast and in the greater rivers, all necessary roads and certain strips of land along sea-coast, river banks, and railways.

(ii) *Native Occupation*.—The Portuguese Government and the Governor-General of the Province may reserve for natives exclusively certain areas of land, with rights of occupation, but not of ownership; outside such

reserves native occupation is only provisional, but any native may obtain title of occupation for a cultivated and demarcated plot containing his hut or situated near it, and in extent not exceeding two hectares for each adult member of his family. Titled occupancy for twenty consecutive years gives the holder (or his heirs) the right to claim ownership of the ground. The local authorities are empowered for special reasons to make special grants of available land.

(iii) *European Occupation*.—Europeans are permitted to occupy land either on lease, or quit-rent, or freehold. The leaseholder may occupy up to 10,000 hectares in the Lourenço Marques district, or 50,000 hectares in other districts, at a rental fixed in the case of a first lease by the local authority, and in the case of every subsequent lease by the public sale of the lease. Quit-rent annual payments are fixed at 40 reis (2*d.*) per hectare for land in the Lourenço Marques district, and 20 reis (1*d.*) per hectare elsewhere, while the further initial payment is determined by the public auction of the land in question. Either leasehold or quit-rent occupation may be subsequently converted to freehold; or, again, land may in the first instance be purchased by auction sale, the minimum price being 1,500 reis (6*s.* 9*d.*) per hectare. Free grants of land may be made to administrative corporations, missions, and benevolent societies of Portuguese nationality.

(iv) *Company Holdings*.—Companies in general enjoy the same privileges as individuals. A special form of land tenure occurs in the case of the *prazos*, held occasionally by individuals, but more usually by associations, who lease not merely extensive plantation lands, but whole districts. Within these districts the *prazo*-holders undertake a certain amount of agricultural development and have the right of farming the ordinary native taxes, paying half of the estimated

yield to Government and exacting labour or agricultural produce in lieu of the other half. There are over fifty Crown *prazos* in the territory of the Zambezia Company alone. The other great companies of the Province are the Mozambique and Nyassa Companies, both of them chartered and entrusted with the whole administration of their extensive territories.

The *prazo* system has been severely criticized. It is alleged on the one hand that the companies have paid little heed to agriculture, have in fact locked up some of the richest lands in the Province, curtailed the labour supply, and attended almost wholly to the profitable business of tax-collecting; on the other hand, it is pleaded that they have done much to educate the native and promote industries of all kinds, whereas in the neighbouring Government reserves no progress whatsoever has been made. The *prazo* question is one of land tenure, in so far as the conditions of tenure permit these methods of administration and of exploiting the country's resources.

(3) FISHERIES

In the lakes and rivers of the Province there are numbers of fresh-water fish. The Zambezi is frequented by bream, barbel, and tiger-fish—the latter noted for the sport it gives the angler—but has not proved congenial to the imported trout, which thrive in the highland streams of British Nyasaland. The Zambezi natives fish with lines, with bamboo rods, with nets dragged by canoes or with traps set in reed fences at the mouths of tributary streams.

There is said to be an abundance of sea-fish of many varieties off the coast. Fishing is practised on a small scale for the supply of local markets, but no attempt has yet been made to can or preserve the fish, as in South Africa.

It was probably the success of a Durban venture in 1908 that induced a Norwegian company in 1911 to start whale-fishing from a station at Inhambane. In 1912 five companies were established, one at Lourenço Marques, two at Inhambane, one at Quelimane, and one at Angoche, and the total catch of whales was 1,307, valued at about £100,000. The following year the catch had fallen to 653 whales, and in 1914 the sole surviving company landed only 412 whales.

Pearls, seldom of any considerable value, are found in the oysters collected by natives in shallow waters along the coast and near the Bazaruto and other islands. An attempt at pearl-fishing, made near Mozambique in 1912, was a complete failure, owing to lack of proper apparatus and other causes.

(4) MINERALS

Geological surveys of the Province are very far from complete. Partial investigations of mineral prospects have been made, chiefly in the Mozambique Company's territory (where a survey has been begun under the direction of the Imperial Institute), in Tete, in the Mozambique district by British investigators on behalf of the Memba Minerals, Ltd., and in Portuguese Nyasaland by British or other servants of the Nyassa Company and allied companies.

Two principal mineral areas appear to exist, so far as present knowledge extends. One of these has its centre at Massikessi, in the Mozambique Company's territory. Here there are numerous veins of auriferous quartz, and the alluvium of the rivers is auriferous. Copper also occurs, and coal may possibly exist in the Mossurize country, where graphite of good quality has also been found. The second area is in Tete, on both sides, but principally north, of the Zambezi. Gold is

found in the valleys of several tributaries, and copper occurs in some localities ; other minerals met with are magnetite, wolfram, galena, tin, mica, and graphite. Reported discoveries of diamonds and petroleum are of unconfirmed value. Coal is found over a large extent of country, chiefly in the north of the district.

The territories of the Nyassa Company are said to contain coal and magnetic iron ore to the west of Pemba Bay and near Litule on the Lujenda river ; gold in the Rariko and other rivers ; important deposits of graphite near Mwalia and Mazimbwa (Mocimboa) ; malachite yielding a high percentage of copper near Cape Delgado ; and zinc, nickel, slate, and marble at different points. Mining in this district has not as yet been attempted and can scarcely be carried on with success until better means of communication exist.

In the Lourenço Marques district coal is reported to occur on the Lebombo Hills and in Inyak Island ; gold, tin, and other metals in various places. None of these have proved to be of economic value. Prospecting for oil was carried on in the Inhangela Lake region of Inhambane in 1905–11, but was discontinued for lack of funds, though prospects were considered promising.

Alluvial mining for gold is practised on a small scale in the Tete area, and more extensively in the neighbourhood of Massikessi. Reef-mining in the former region is handicapped by difficulties of transport and has been attempted in only a few spots near Shifumbazi and Missale, towards the north-west frontier ; but in the Manika area, along the valleys of the upper Revwe river and its tributaries the Muza and Shimezi, it has made some progress, with the aid of the Beira Railway and a good road system. From this region the output of alluvial and reef gold together rose between 1906 and 1914 from 2,284 to 15,263 ounces of fine gold : two-thirds of the total in 1914 was obtained by dredging

in the Revwe valley. The output in 1915 and 1916 was 22,245 and 21,217 ounces respectively. On some of the reefs in the same district silver is extracted as a by-product, but the value of the annual output was only £353 in 1913, and had diminished to £123 in 1916. A copper mine near the border west of Massikessi had in 1909 an output valued at £22,000, but was closed down for a number of years and has only recently been reopened.

The ascertained mineral resources of Portuguese East Africa are thus of no very great value, and the present mineral output is inconsiderable. The construction of roads and railways and the opening up of large territories as yet insufficiently prospected may lead to the working of known and the discovery of new deposits, but there is no assurance of any remarkable development of mining enterprise.

(5) MANUFACTURES

Manufactures in Portuguese East Africa are unimportant. The native tribes for their own use construct and thatch their huts and make dug-out and bark canoes, baskets and mats, fish-traps and nets, knives, spears, bows and rude arrows, hoes and axes, platters and wooden spoons, drums and other primitive musical instruments, brass-wire ornaments, and the various earthenware utensils which they employ for cooking food or storing liquids. They also make bark-cloth for use as clothing and as sacking, express vegetable oils, ferment and distil various kinds of beer and wine, dry and sell fish, and extract salt in salt pans near the coast. On the Zambezi there are a few goldsmiths, trained originally by the industrial Catholic brotherhoods of Upper Zambezia, who manufacture fragile but finely-finished articles of gold and silver. The plaiting of grasses into tobacco- and cigarette-cases has

naturally followed the manufacture of pipe-tobacco, cigars, and cigarettes.

An oil and soap factory was established in Lourenço Marques in 1914 ; it is said to be able to produce one ton of oil per day and a thousand boxes of soap. Brickmaking is an important industry in Lourenço Marques. Allusion has been made, in connexion with agriculture, to the processes of decorticating sisal, ginning cotton, and making sugar, the last being the most important manufacture of the Province. Potteries have been started recently in Kumbana and Panda, in the Inhambane district.

(C) COMMERCE

(1) DOMESTIC

(a) Principal Branches of Trade

In Lourenço Marques and the other coast towns, before the war, the domestic trade was fairly equally divided between Portuguese, English, and German houses. The better-class trade was in British and Portuguese hands, whereas the German firms supplied and financed the Indian traders who carried on the 'Kaffir truck' retail trade throughout the province. The extent and value of this trade may be gauged from the statistics of imports of cloth (cotton and unspecified), which in 1913 amounted at Lourenço Marques alone to 1,525,758 lb., of a value of £134,244.

The Indian traders were accustomed to buy their supplies from the German merchants on long credits, and, as the Indian trade with the natives is a barter trade, in which the Banyan gives the native wearing apparel and manufactured goods on credit against the native's undertaking to hand him over produce from his crops when they reach maturity, the Indian trader,

as well as the German wholesale merchant, made a double profit, first on the goods supplied to the natives and again on the produce eventually received in exchange. The principal items of barter by which the natives pay the Banyan traders for their cloth and other goods are ground-nuts and *feijão* (Kaffir beans). Ground-nuts are cultivated by natives almost exclusively, and before the war the trade in this product, amounting to some two thousand tons per annum, was practically a monopoly of the German house of W. Philippi & Co. The industry is of great importance to the natives, providing them with a saleable commodity which enables them to do business with the traders, and in most cases is the means by which they pay their hut-tax to the Government.

The expenses of the Banyan traders are insignificant : they live for next to nothing, and contrive to prosper on a seemingly inadequate turnover. In spite of the length of credits given by the wholesalers to the retail shops, and the apparent lack of security for the goods advanced, bad debts are seldom incurred and few failures are recorded. The trading community has good sources of information about its members, and any commercial dishonesty or immorality would soon be penalized by the withholding of credit.

(b) *Towns, Markets, and Fairs*

In every town in the Province there is a native market under municipal control, and subject to local taxation, which is not onerous. The municipal market at Lourenço Marques is a large and important glazed structure, where much chaffering goes on in the mornings. The Beira market is small and insignificant ; and in the other coast towns, Quelimane, Angoche, Mozambique, and the rest, the markets are merely railed-off enclosures.

(c) Organizations to promote Trade and Commerce

Chambers of Commerce have been established in the principal seaports for the purpose of fostering and promoting trade.

(d) Foreign Interests

British interests are represented by many leading merchants in Lourenço Marques, and the coaling and forwarding trade there is almost entirely in British hands. In Beira three-fifths of the merchants are British, and the Beira Railway is owned and managed by a British company. The Mozambique Chartered Company, though constituted under Portuguese law and having its registered head office in Lisbon, is largely under English direction, and a very large proportion of its principal employees in East Africa are British. Quelimane and Angoche have no purely British mercantile communities, but of the retail trade some two-thirds is in the hands of British Indian shopkeepers.

In the northern half of the Province, before the late war, the domestic trade was being gradually concentrated in the hands of a few energetic German firms. The firm of W. Philippi & Co. had almost a monopoly of both export and import trade from Quelimane to Cape Delgado ; its head-quarters were in Port Amelia and on Mozambique Island. Other prominent firms were Hoffmann & Co. and the so-called Scandinavian Swiss house, Société du Madal, which was then supported by capital and connexions in Germany as well as in France, Belgium, and Switzerland. North of Beira there was apparently no competing British firm, and there were only a few Portuguese merchants, who were less enterprising than their German rivals and commanded far less working capital.

The German merchants in this northern area sometimes acted as agents for the larger Indian firms, but generally imported goods on their own behalf and supplied the Banyan traders on easy terms. Latterly they had themselves engaged in retail business and established numerous small shops along the coast and along the main roads for about 100 miles inland. In this region the British Indian retail trader was, before the recent war, gradually being driven out; and only one strong Indian firm remained, maintaining its own shops, giving liberal credit to small traders, and thus preventing the establishment of a complete German monopoly.

An English firm in Mozambique is now making steady progress, and the important 'Kaffir truck' house of Solomon & Co., which enjoys a large proportion of this trade throughout Rhodesia, has recently been making vigorous and successful efforts, not only in Lourenço Marques and Beira but in Chinde, Quelimane, Angoche, Mozambique, and the north.

(e) Methods of Economic Penetration

It has been generally recognized that there was no ulterior motive in these British undertakings, no scheme of commercial penetration leading up to political changes, and no attempt to eliminate Portuguese competition or interfere with Portuguese administration. The progress made represented the natural growth of legitimate business, of mining and agricultural ventures, and of projects intended to facilitate communications and trade within the Province and also between Europe and the British possessions in the interior.

German penetration, on the other hand, was of a more insidious and dangerous character. No exception could be taken to the thoroughness of their business methods

and to the care they took to suit their goods to their customers' tastes and means, but they owed their success no less to the special advantages they enjoyed over their competitors, such as cheap freights on the German State railways and on the subsidized German East Africa line, secret rebates on German goods shipped to East Africa, and the powerful support of their banks, which enabled them to offer their customers lengthy credits. By these means they had succeeded in practically monopolizing the trade of the northern territories of the Province, without contributing in any marked degree to their agricultural or mineral development.

The territory administered under charter by the Companhia do Nyassa marches with the former German East Africa, now Tanganyika territory. There is evidence to show that the interest the Germans took in the trade of this territory extended from the commercial to the political field, and that they made as great efforts to control the approaches to the Upper Congo from the east as from the west. The success of the two schemes would, it was hoped, give Germany control of a trans-African belt unsurpassed for the production of minerals and of the raw material for industries. In regard to Portuguese East Africa the first necessity was to secure control of the Nyassa Company. The majority of the directors of this company were appointed by Nyassa Consolidated Limited; so that, when the German banks succeeded, in 1914, by means of a neutral intermediary, in buying up the greater portion of the shares in the latter company, they acquired complete command over the operations of the chartered Companhia do Nyassa. The German programme appears to have included not only the economic permeation of the northern territories, but their eventual political absorption in German East Africa, by the aid of a German

directorate on the Nyassa Chartered Company. The outbreak of hostilities between Portugal and Germany interrupted the progress of this well-considered scheme. On the other hand, it gave a large number of well-known German publicists¹ an opportunity of openly claiming, as spoils of war and constituent parts of the projected German Empire of Mittel-Afrika, Angola and the Portuguese islands on the west coast, and the whole of Portuguese East Africa north of the Zambezi.

(2) FOREIGN

Table I printed in the Appendix gives a summary of the trade of Mozambique Province during the years 1906 and 1911-15. The figures in Table II, covering the years 1911-16, show the comparative values of imports, exports, re-exports, and transit trade (excluding gold and silver, in bar or bullion), and also the proportion of trade passing through each of the harbours. The features which call for special notice are, first, the relatively high values of goods in transit and re-exports, which together represent twice the value of domestic imports and exports; second, the insignificance of the trade of other ports as compared with that of Lourenço Marques and Beira. Both features emphasize the interdependence of these Portuguese ports and the British possessions inland.

¹ The following works and references may be mentioned: *Koloniale Friedensziele*, by Dr. F. Oskar Karstedt (Weimar, 1917); *Gegenwart und Zukunft der deutschen Kolonien* (Berlin, 1917) and *Das portugiesische Kolonialreich der Gegenwart* (Berlin, 1918), by Professor Hans Meyer; *Mittel-Europa-Mittel-Afrika* (1917), by Paul Leutwein; *Afrikanische Kriegsziele*, by Davis Trietsch (Berlin, 1918); *Kolonial-Kalender*, 1917, articles by Dr. Solf; *Preussische Jahrbücher*, articles by Dr. Helfferich; *Bismarck's Erbe*, by Professor Hans Delbrück (1915). The map of Mittel-Afrika (scale 1 in 2,000,000) is being published in sections by the German Imperial Colonial Office.

(a) *Exports*

(i) *Values*.—The total value, in *escudos*, of exports for the years 1906 and 1911–15 is shown in Table I of the Appendix.

The accompanying table gives a summary of the chief products exported during the years 1911–15 from the territory administered directly by the State.

CHIEF EXPORTS FROM STATE-GOVERNED TERRITORIES OF PORTUGUESE EAST AFRICA, 1911–15 (Values in *escudos*¹)

	1911	1912	1913	1914	1915
Sugar	397,004	565,866	438,006	382,787	519,218
Ground-nuts	325,571	377,575	253,350	320,096	420,811
Copra	267,630	284,707	249,107	268,386	380,316
Whale-oil	120,426	322,627	142,645	244,283	201,876
<i>Feijão</i> (Kaffir beans)	68,823	80,804	108,520	91,251	102,623
<i>Mafureira</i> (oil-seeds)	28,861	41,899	268,976	30,151	23,766
Maize (in grain) . .	108,616	29,380	77,132	97,416	73,204
Wax	56,797	93,182	44,918	41,630	63,768
Rubber	103,258	77,227	41,356	10,782	18,627
Mangrove bark . . .	37,561	42,683	69,312	35,636	51,358
Sesame (oil-seeds) . .	16,835	22,946	25,939	23,235	44,493
Skins and hides . . .	22,659	21,397	24,650	19,143	26,573
<i>Mapira</i> (Kaffir corn)	8,848	2,264	21,728	30,487	39,063
Ivory	5,743	6,480	2,244	1,129	4,160

From the Mozambique Company's territory the export of highest value is sugar; gold (in bar), maize, and mangrove bark are next in importance; wax, ground-nuts, cotton, ivory, rubber, alcohol, Kaffir beans, and copra are also exported in appreciable quantity.

The territory of the Nyassa Company is in a lower state of development; its exports are on a minor scale and include wax, ground-nuts, sesame, maize, rubber, tobacco, and gum copal.

For the whole of Portuguese East Africa, including the territories of the Mozambique and Nyassa Companies, the exports come as follows in order of average annual value: sugar, ground-nuts, maize, copra, gold (in bar), whale-oil, wax, mangrove bark. The value

¹ For the value of the *escudo*, see below, p. 91.

of sugar exported is four times the value of the next item on the list. Sisal hemp will probably become one of the leading exports in future years.

(ii) *Countries of Destination*.—The exports which Portugal received from her East African possessions were sugar, ground-nuts, wax, maize, tobacco, salt, hides, and skins. The Portuguese possessions shared in the exports of sugar, ground-nuts, maize, tobacco, and wax. *Mafureira* and other oil-seeds were shipped to Marseilles, and France seems also to have absorbed the greater part of the copra shipment. Germany received a portion of the rubber, wax, oil-seeds, and mangrove bark. The United States purchased mangrove bark before the outbreak of war, and since then has taken three-quarters of the total, with a large proportion of the beans and peas. The Union of South Africa is a good customer for sugar, ground-nuts, maize, mangrove bark, tobacco, beans and peas, and dried fish. Rhodesia received, presumably for transmission, all the gold produced in the Province, also a quantity of maize and ground-nuts. The United Kingdom bought sugar, oil-seeds, beans and peas, maize, mealie meal, rubber, wax, hides, and skins.

(b) Imports

(i) *Values*.—The values of imports for the years 1906 and 1911–15 are shown in Table I of the Appendix. They rose from 7½ millions in 1906 to 13 millions in 1912, but have since fallen below 10 millions.

(ii) *Countries of Origin*.—The imports are miscellaneous in character and drawn from many countries. From Portugal and Portuguese possessions the Province obtains a large share of its imports of preserved meat and fish, lard, butter and cheese, soap, coffee, tobacco, spirits and wines, boots and shoes, cotton cloth, and other cloth. The United Kingdom and British posses-

sions before the war used to supply agricultural and mining machinery, sacks and sacking, cement and building materials, cotton cloth, canvas and other cloth, cutlery, lard, butter and other provisions, earthenware, grain and flour, furniture, paper, hardware, railway material, electric and telegraphic material, spirits, ale and beer. The Union of South Africa contributes coal, mealie meal, grain, vegetables, beer, tobacco, and live animals. Germany used to supply beer, railway material, cement, cutlery and hardware, furniture, cotton cloth, cheap window-glass, agricultural and other implements. Preserved milk came chiefly from Switzerland. The Netherlands sent spirits, cheese, and coffee. A large percentage of imported coffee came from Brazil. The United States furnished mineral oils, agricultural implements, office instruments, timber, furniture, and provisions. Cotton cloth from Belgium, hardware from France, cement and timber from Sweden, were the only other items calling for mention.

(c) Customs and Tariffs

The schedules of duties payable on exports and imports are so framed as to secure for Portugal and Portuguese possessions the largest possible share of the trade with the Province. Portugal's nominal share of this trade seems to have been about one-seventh of the exports and two-fifths of the imports intended for domestic use. The latter figure is only attained by the practice of 'nationalizing' goods at Lisbon on the voyage from Europe: the payment of a small fee of 12s. 6d. per ship's manifest entry when the vessel calls at Lisbon effects a saving of 20 per cent. on the customs duties payable at Lourenço Marques, nationalizes the cargo, and entitles it to be designated Portuguese.

The customs dues are not uniform for all Portuguese East Africa. The Nyassa and Mozambique Chartered Companies have their own tariffs, differing from the

general scheme applicable to the territory administered directly by the Provincial Government. Goods passing out of one administrative area into another are liable to duty; an unnecessary number of customs officials is employed on this work, and the internal trade of the territories suffers much inconvenience and hindrance. Even within the Provincial Government's territory municipal surcharges are made at the various ports, and in addition fees are payable to the customs officials.

The limited number of imports from foreign countries which are generally free of duty includes books, coal, ice, telegraphic and railway material, boats, scientific instruments, sewing and calculating machines, agricultural, mineral, and industrial machinery, and (in accordance with the Mozambique Treaty) products of the Transvaal. On the other hand, a measure of protection is given to imports from Portugal, including soap, preserved meat, preserved fruits and vegetables, boots and shoes. All exports consigned to Portugal enjoy a generous rebate on the ordinary export rates.

(d) *Commercial Treaties*

The Berlin Act of 1885 provided for free trade in the basin of the Congo and the zone extending thence eastward to the Indian Ocean and including Portuguese territory north of the Zambezi. The Declaration attached to the Brussels Act of 1890 authorized the imposition of import duties not exceeding 10 per cent. *ad valorem* (except on spirituous liquors), but again disallowed transit dues and differential treatment.

In a convention drawn up with Great Britain in 1890, but never ratified, Portugal reserved her right to exclude her ports on the east coast from the operation of the free-zone provisions of the Berlin Act. Subsequent ratified agreements with Great Britain provided for the free and unrestricted navigation of the Zambezi and Shire, the lease of the concession at Chinde, and

the exemption from transit dues of all traffic passing along the Zambezi waterways, but authorized transit dues not exceeding 3 per cent. *ad valorem* for merchandise imported or exported along other routes through the Province.

The Mozambique Treaty, signed in 1909 by the Transvaal and Portuguese Governments and afterwards confirmed and renewed year by year by the Government of the Union of South Africa, provided that all products (except alcoholic liquors) of the Province of Mozambique and of the Transvaal may pass free of import or export duty from one province to the other, and that merchandise of any origin may pass inwards through Lourenço Marques free of import or transit dues. The same treaty—as has been mentioned above—regulated the recruiting of Mozambique natives for the Rand mines; while a third section aimed at dividing in equitable proportions the seaborne traffic passing inwards through Lourenço Marques, Durban, and the Cape ports to the ‘competitive area’ of the Transvaal. The share assigned to Lourenço Marques was to range between 50 and 55 per cent. of the whole of this traffic. After the outbreak of the late war, however, Lourenço Marques received less than the minimum reserved to it under the agreement.¹

¹ The following returns for recent years show the drop in the percentage of the ‘competitive area’ traffic secured by Lourenço Marques :

<i>Year.</i>	<i>Tonnage.</i>	<i>Per cent.</i>
1910	407,388	66.06
1911	326,468	59.85
1912	268,436	55.43
1913	240,394	51.39
1914	179,399	48.78
1915	119,759	36.17
1916	103,363	31.19

According to statements in the daily press in 1918, action was then being taken to attract an increased proportion of such traffic to the Portuguese line.

(D) FINANCE

(1) *Public Finance* ✓

Until recent years public finances, including budget and taxes, were controlled by the Portuguese Colonial Office and administered from Lisbon. The surplus or deficit appeared in the Portuguese budget under the head of Colonial Administration. Sometimes the surplus of one colony was assigned to making good the deficit of another. The Province of Mozambique on different occasions made contributions of this description—e.g. one of 200,000 *escudos* (or *milreis*) to Angola, another, of 313,000, to Portuguese India. For the year 1913–14 the estimated revenue of the Province of Mozambique was 5,878,598 *escudos*. The item of general administration accounted for over 40 per cent. of the total expenditure, military and naval administration for over 20, the administration of justice for under 2 per cent. In the same year revenue was estimated to be slightly in excess of expenditure; rather more than half of it was produced by taxation, direct and indirect.

A considerable change was effected by the legislation of August 25, 1914, whereby the Portuguese colonies received a status and autonomy comparable to that of British Crown colonies. The Financial Organic Act of this date made provision for the financial independence of the colonies, and gave them power, under safeguards, to raise loans for their internal development. The highly protective system of tariffs was modified to some extent, the mother country agreeing to accept a reduction in the preference which it had previously enjoyed. Portuguese shipping is, however, still protected by the 20 per cent. reduction of duties on colonial imports shipped *via* Lisbon, and the importa-

tion of sugar to Portugal remains subject to the same duty as before, with reduction granted for the same limited quantity. The details of the Mozambique budget are arranged by the provincial authorities and the Lisbon Government exercises a merely nominal sanction of annual expenditure. Under war conditions the estimates of revenue and expenditure had risen, and for the year 1917-18 balanced at 8,042,626 *escudos*.¹

(2) *Currency* ✓

Until the establishment of the Republic in Portugal, the unit of currency was the *milreis* (1,000 *reis*). Since then the *milreis* has been replaced by the *escudo*, of the same nominal value, with decimal parts in *centavos*. The Portuguese coinage, however, is little used; at Lourenço Marques British gold and silver coins are chiefly employed, and at Mozambique the currency is largely British Indian rupees, on which an import duty of 10 per cent. is levied. Paper money circulates in the form of notes, issued by the Banco Nacional Ultramarino, of the values of £1 and £5, and of 1, 2½, 5, 10, 20, 50, and 100 *escudos*. A subsidiary issue, as a war-time measure, of notes for 50 and 20 *centavos*, was in contemplation in 1915.

The exchange value of the *escudo* in normal times is 4s. 5½*d.* (or 4·5 *escudos* to the sovereign). Since the outbreak of war, Portuguese currency has depreciated heavily. The *escudo* varied in value during 1916 between 2s. 11½*d.* and 2s. 8*d.*, and subsequently fell as low as 2s. 6*d.* The decline in its purchasing power has to be considered in reviewing financial returns for the years of war. For instance, the rise in 1916 in the

¹ From recent notices in the Lisbon press it appears that all the legislation described in this paragraph has been, or will shortly be, annulled. In some of the colonies it had never come into operation.

apparent value of imports is discounted to the extent of the depreciation of the standard coin.

(3) *Banking*

There is only one Portuguese bank in the Province, the Banco Nacional Ultramarino, which transacts all the financial business of the Government and has a monopoly of the privilege of issuing legal-currency notes. Its head office in the Province is at Lourenço Marques, and it has branches at Inhambane, Beira, Quelimane, Mozambique, Chinde, and Tete. The two principal South African banks, the Standard Bank of South Africa and the National Bank of South Africa, have branches in Lourenço Marques and Beira, and transact the bulk of the commercial exchange business between Portuguese East Africa on the one hand, and Rhodesia and the Union of South Africa on the other.

The National Bank has branches also at Inhambane, Massikessi, Mozambique, Quelimane, and Villa Pery.

In view of the constant stream of transactions between the Banyan traders in the Province and the Indian merchants in Bombay, Calcutta, and Madras, it is somewhat surprising that none of the Anglo-Indian banks has yet established a branch in the Province. The National Bank of India is represented in Mombasa, Tanga, Dar-es-Salaam, and Zanzibar.

(4) *Influence of Foreign Capital*

There is practically no Portuguese capital available locally, and even the Portuguese *prazo* plantation companies are dependent upon foreign shareholdings. The local Portuguese traders and merchants require all their capital for the maintenance and extension of their own trade. It was for this reason that, before the

war, the German merchants in the north of the Province, by providing capital for trading purposes, had succeeded gradually in securing a practical monopoly of the lucrative barter trade with the native population through the Banyans.

(5) *Principal Fields of Investment*

There is scope for the investment of funds in trading and plantation companies, in the development enterprises, mineral and agricultural, promoted or authorized by the Mozambique and Nyassa Chartered Companies, in railway and transport undertakings, and in individual farming or business.

(E) GENERAL REMARKS

A survey of the economic conditions of Portuguese East Africa leads to the conviction that the resources of the country have as yet been inadequately and unevenly developed. It would be unfair to ignore the good work done by numerous energetic officials in difficult circumstances, but the impetus to progress has for the most part been given by foreign capital and enterprise. The most flourishing part of the Province is the territory administered by the Mozambique Company, which has a progressive policy and funds sufficient to promote mining, cattle-raising, maize and sugar growing, and to improve the means of communication within its boundaries.

An undeveloped country like Portuguese East Africa requires to be helped on its way either by free grants or by generous loans. The Portuguese Government, being unable to provide money for these purposes, has handed over its administrative powers in the northern and central regions to the Nyassa and Mozambique Chartered Companies, and given extensive privileges

to such bodies as the Zambezia, Luabo, and Boror Companies, the Société du Madal, and the other associations or individuals who hold *prazo* concessions.

Progress in recent years has been most marked in the production of sugar and copra ; and it may be assumed that, as further areas are brought under cultivation, the export figures will continue to rise. Sisal hemp is attracting so much attention that the fibre export is likely to attain high values within a few years. Maize and oil-seeds will most probably continue to be extensively grown and exported ; tobacco and cotton are also likely to repay cultivation.

Agricultural development generally will depend mainly upon the introduction of the working capital necessary for laying out new plantations and for the improvement of transport facilities. The labour supply is abundant for the needs of the Province.

The prospects of mining industries are too uncertain to be forecasted with accuracy. There is at present no reason to anticipate startling developments ; but the coal and gold deposits in the Tete district may be worked extensively, when the completion of the projected railways facilitates traffic between the upper Zambezi and the coast.

APPENDIX

DOCUMENT I

ANGLO-PORTUGUESE TREATY OF JUNE 11, 1891.

Art. I.—Great Britain agrees to recognize as within the dominion of Portugal in East Africa the territories bounded—

1. To the north by a line which follows the course of the River Rovuma from its mouth up to the confluence of the River M'Sinje, and thence westerly along the parallel of latitude to the confluence of these rivers to the shore of Lake Nyassa.

2. To the west by a line which, starting from the above-mentioned frontier on Lake Nyassa, follows the eastern shore of the lake southwards as far as the parallel of latitude $13^{\circ} 30'$ south; thence it runs in a south-easterly direction to the eastern shore of Lake Chiuta, which it follows. Thence it runs in a direct line to the eastern shore of Lake Chilwa or Shirwa, which it follows to its south-easternmost point; thence in a direct line to the easternmost affluent of the River Ruo, and thence follows that affluent, and, subsequently, the centre of the channel of the Ruo to its confluence with the River Shiré.

From the confluence of the Ruo and Shiré the boundary will follow the centre of the channel of the latter river to a point just below Chiwanga. Thence it runs due westward until it reaches the watershed between the Zambesi and the Shiré, and follows the watershed between those rivers, and afterwards between the former river and Lake Nyassa until it reaches parallel 14° of south latitude.

From thence it runs in a south-westerly direction to the point where south latitude 15° meets the River Aroangwa or Loangwa, and follows the mid-channel of that river to its junction with the Zambesi.

Art. II.—To the south of the Zambesi the territories within the Portuguese sphere of influence are bounded by a line which, starting from a point opposite the mouth of the River Aroangwa or Loangwa, runs directly southwards as far as the 16th parallel of south latitude, follows that parallel to its intersection with

the 31st degree of longitude east of Greenwich, thence running eastward direct to the point where the River Mazoe is intersected by the 33rd degree of longitude east of Greenwich ; it follows that degree southward to its intersection by the 18° 30' parallel of south latitude ; thence it follows the upper part of the eastern slope of the Manica plateau southwards to the centre of the main channel of the Sabi, follows that channel to its confluence with the Lunte, whence it strikes direct to the north-eastern point of the frontier of the South African Republic, and follows the eastern frontier of the Republic, and the frontier of Swaziland, to the River Maputo.

It is understood that in tracing the frontier along the slope of the plateau, no territory west of longitude 32° 30' east of Greenwich shall be comprised in the Portuguese sphere, and no territory east of longitude 33° east of Greenwich shall be comprised in the British sphere.

The line shall, however, if necessary, be deflected so as to leave Mutassa in the British sphere, and Massi-Kessi in the Portuguese sphere.

Art. III.—Great Britain engages not to make any objection to the extension of the sphere of influence of Portugal, south of Delagoa Bay, as far as a line following the parallel of the confluence of the River Pongolo with the River Maputo to the sea-coast.

Art. IV.—It is agreed that the western line of division separating the British from the Portuguese sphere of influence in Central Africa shall follow the centre of the channel of the Upper Zambesi, starting from the Katima Rapids up to the point where it reaches the territory of the Barotse Kingdom.

That territory shall remain within the British sphere ; its limits to the westward, which will constitute the boundary between the British and Portuguese spheres of influence, being decided by a Joint Anglo-Portuguese Commission, which shall have power, in case of difference of opinion, to appoint an Umpire.

It is understood on both sides that nothing in this Article shall affect the existing rights of any other State. Subject to this reservation, Great Britain will not oppose the extension of Portuguese administration outside of the limits of the Barotse country.

Art. V.—Portugal agrees to recognize, as within the sphere

of influence of Great Britain on the north of the Zambesi, the territories extending from the line to be settled by the Joint Commission mentioned in the preceding Article to Lake Nyassa, including the islands in that lake south of parallel $11^{\circ} 30'$ south latitude, and to the territories reserved to Portugal by the line described in Article I.

Art. VI.—Portugal agrees to recognize, as within the sphere of influence of Great Britain to the south of the Zambesi, the territories bounded on the east and north-east by the line described in Article II.

Art. VII.—All the lines of demarcation traced in Articles I to VI shall be subject to rectification by agreement between the two Powers, in accordance with local requirements.

The two Powers agree that in the event of one of them proposing to part with any of the territories to the south of the Zambesi assigned by these Articles to their respective spheres of influence, the other shall be recognized as possessing a preferential right to the territories in question, or any portion of them, upon terms similar to those proposed.

DOCUMENT II

AWARD OF H. M. THE KING OF ITALY AS ARBITRATOR APPOINTED UNDER THE DECLARATION SIGNED AT LONDON ON AUGUST 12, 1903 (which took the place of the procedure indicated in Art. iv of the Treaty of June 11, 1891), delivered on May 30, 1905. (Regarding the Western boundary of the Barotse Kingdom).

We decide as Arbitrator that the western frontier of the territory of the Barotse Kingdom was, on the 11th June, 1891, as follows (see annexed explanatory sketch-map) :—

The straight line between the Katima Rapids, on the Zambesi, and the village of Andara, on the Okovango, as far as the point where it meets the River Kwando ;

The eastern side of the bed of the upper waters of the Kwando as far as the point of intersection with the 22nd meridian east of Greenwich ;

The 22nd meridian east of Greenwich as far as the point of intersection with the 13th parallel ;

The 13th parallel as far as the point of intersection with the 24th meridian east of Greenwich ;

The 24th meridian east of Greenwich as far as the frontier of the Independent State of the Congo.

DOCUMENT III

AWARD OF SIGNOR VIGLIANI, APPOINTED AS ARBITRATOR REGARDING THE MANIKA PLATEAU BOUNDARY UNDER THE DECLARATION OF JANUARY 7, 1895, under Article II of the Treaty of June 11, 1891, delivered at Florence on January 30, 1897.

We declare that according to Art. II of the Treaty signed at Lisbon on the 11th June, 1891, the line which should separate the spheres of influence of Great Britain and Portugal in Eastern Africa south of the Zambesi, from latitude $18^{\circ} 30'$ to the confluence of the Save (or Sabi) with the Lunde (or Lunte), should be drawn as follows :—

1. As regards the first section of the frontier in dispute, according to the designation used in the joint Note of Reference ('Compromis') the line on leaving the point where latitude $18^{\circ} 30'$ intersects longitude 33° east of Greenwich runs due west to a point situated at the intersection of $18^{\circ} 30'$ by a straight line drawn from the *stone pinnacle* on the crest of Mahemasemika (or Massimique), and a height on the northern spur of Mount Panga marked 6,340 feet. From this point of intersection on the parallel of latitude it ascends in a straight line to the above-mentioned point marked 6,340 feet ; then after following the watershed to the point marked 6,504 feet, it runs in a straight line to the summit of Mount Panga (6,970 feet). From this point it runs in a straight line to the point marked 3,890 feet, and thence it runs also in a straight line, crossing the River Inyamkarara (or Inhamucarara) to the point marked 6,740 feet situated to the north of Mount Gorongoe.

After this it follows the watershed, passing through the points marked 4,960 feet and 4,650 feet till it reaches the summit of Mount Shuara or Chuara (5,540 feet) ; and then following the watershed between the Inyamkarara and the Shimezi (or Chimeza, 3,700 feet) reaches the trigonometrical point marked on Mount Venga (or Vengo, 5,550 feet).

From Mount Venga it follows the watershed between the upper valley of the Inyamkarara and the Revué, and subsequently that between the Revué and the Odzi as far as the point at which the spur branches off, which forms the watershed between the Menini (or Munene) and the Zombi (or Zombe), whence it follows the crest of this spur to Mount Vumba (4,950 feet).

From Mount Vumba it runs in a straight line to the trigonometrical point situated on the Serra Chaura between 4 and 5 kilom. east of the main watershed, and thence in a straight line to a point situated at the eastern extremity of Serra Inyamatumba (4,650 feet).

From there it follows the watershed, which incloses on the north the valley of the Mangwingi (or Munhinga) till it rejoins the main watershed between the Save and the Revué. It follows this watershed to the point where the small spur branches off which incloses on the north the upper valley of the Little Mussapa (or Mussapa Pequeno), and runs along the crest of this spur to the point marked 5,100 feet, whence it runs due east, crossing the Little Mussapa, and reaching the crest of the eastern slope of Mount Guzane, which it follows till it meets the meridian of longitude 33° east of Greenwich; after this it follows this meridian, crossing the Great Mussapa (defile of Chimanimani) till it reaches the point marked *A* on the map hereto annexed.

2. As regards the second section of the frontier, which is comprised between the end of the preceding section and the point where the upper part of the eastern slope of the plateau cuts longitude $32^{\circ} 30'$ east of Greenwich, the boundary follows the line shown on the map hereto annexed by the letters *A, B, C, D, E, F, G, H, I, J, L, M, N, O*, meeting the meridian $32^{\circ} 30'$ at about latitude $20^{\circ} 42' 17''$.

3. As to the third section, which concerns the territory which extends from the intersection of the edge of the eastern slope by $32^{\circ} 30'$ in latitude about $20^{\circ} 42' 17''$ to the point at which the Rivers Save and Lunde meet, the line following the aforesaid meridian $32^{\circ} 30'$ runs in a straight line to the centre of the main channel of the Save, and then ascends this channel to its confluence with the Lunde, where the frontier submitted to our arbitration comes to an end.

DOCUMENT IV

ANNEXE TO THE TREATY OF JUNE 11, 1891.

This provides for a Lease by Portugal to Great Britain of a block of land at Chinde, and for a Lease by Great Britain to Portugal of a block of land on Lake Nyasa. Leases signed on May 7, 1892. An agreement modifying this lease and substituting other pieces of land for those therein specified was signed on September 12, 1898. This amended concession was carried out and a deed of transfer executed on December 27, 1898.

DOCUMENT V

GERMAN-PORTUGUESE TREATY OF DECEMBER 30, 1886.

After preliminaries the Treaty continues :

Art. I.—The Boundary line which shall separate the Portuguese and German Possessions in South-West Africa follows the course of the River Kunene from its mouth to the waterfalls which are formed to the south of the Humbe by the Kunene breaking through the Serra Canna. From this point the line runs along the parallel of latitude to the River Kubango, then along the course of that river to the village of Andara, which is to remain in the German sphere of influence, and from thence in a straight line eastwards to the rapids of Catima, on the Zambesi.

Art. II.—The Boundary line which shall separate the Portuguese from the German Possessions in South-East Africa follows the course of the River Rovuma from its mouth to the point where the River M'sinje joins the Rovuma and runs to the westward on the parallel of latitude to the shores of Lake Nyassa.

Art. III.—His Majesty the German Emperor recognizes the right of His Majesty the King of Portugal to exercise his influence of sovereignty and civilization in the territories which separate the Portuguese possessions of Angola and Mozambique, without prejudice to the rights which other Powers may have acquired there up to now of exercising their sovereign and civilizing influence.

And in accordance with this acknowledgement, binds himself not to make acquisitions of sovereignty in the territories in question, not to accept Protectorates in them, and, finally, not to place there any obstacles to the extension of Portuguese influence.

His Majesty the King of Portugal and the Algarves undertakes identical obligation as regards the territories which under Articles I and II of this Agreement are within the sphere of German action.

Art. IV.—Portuguese subjects in the German Possessions of Africa and German subjects in the Portuguese Possessions shall enjoy in respect to the protection of their persons and goods, with the acquisition and transfer of personal and real property, and to the exercise of their industry, the same treatment without any difference whatever, and the same rights as the subjects of the nation exercising sovereignty or protection.

TABLE I. TRADE OF MOZAMBIQUE PROVINCE, 1906 AND 1911-15

(Including gold and silver in bar and in bullion : values in *escudos*.*)

	1906	1911	1912	1913	1914	1915
Territory administered by Government						
Imports . . .	6,055,478	7,503,705	9,187,690	8,728,868	8,255,871	7,384,272
Exports . . .	3,779,397	4,622,166	5,886,986	5,568,589	4,612,158	5,443,705
Re-exports . . .	1,407,901	2,738,509	4,001,780	4,883,544	4,438,390	5,336,294
Transit . . .	21,364,651	26,303,044	23,070,479	23,812,251	18,116,252	11,681,279
Total . . .	32,607,427	41,167,424	42,146,935	42,993,252	35,422,671	29,845,550
Territory of Mozambique Company						
Imports . . .	1,075,152	2,896,322	3,432,012	2,978,621	2,266,467	1,911,421
Exports . . .	602,557	2,715,311	3,361,354	2,886,505	2,609,381	2,054,185
Re-exports . . .	918,845	1,733,574	1,772,946	3,383,677	4,487,356	5,283,081
Transit . . .	2,785,211	6,944,990	6,857,484	7,710,374	5,682,158	3,890,280
Total . . .	5,381,765	14,290,197	15,423,796	16,959,177	15,045,362	13,138,967
Territory of Nyassa Company						
Imports . . .	409,806	483,187	597,950	581,445	562,165	372,878
Exports . . .	396,307	449,421	452,845	355,449	238,847	191,738
Re-exports . . .	5,379	87,197	54,999	60,119	28,024	15,266
Transit . . .	—	120	7	—	—	—
Total . . .	811,492	1,019,925	1,105,801	997,013	829,036	579,882
Totals for Mozambique Province						
Imports . . .	7,540,436	10,883,214	13,217,652	12,288,934	11,084,503	9,668,571
Exports . . .	4,778,261	7,786,898	9,701,185	8,810,543	7,460,386	7,689,628
Re-exports . . .	2,332,125	4,559,280	5,829,725	8,327,340	8,953,770	10,634,641
Transit . . .	24,149,862	33,248,154	29,927,970	31,522,625	23,798,410	15,571,559
Grand Total . . .	38,800,684	56,477,546	58,676,532	60,949,442	51,297,069	43,564,399

* Cf. p. 91 above for the value of the *escudo*.

TABLE II. TRADE OF MOZAMBIQUE PROVINCE BY PORTS, 1911-16

(Values in escudos.)

Year.	Lourenço Marques.	Inhambane.	Chinde.	Queimane.	Mozam- bique.	Beira.	Ibo.	Total.
Imports for consumption (National and Foreign)								
1911	4,491,674	730,312	612,305	483,457	838,021	2,523,044	424,688	10,103,501
1912	5,417,813	976,998	871,152	671,076	981,219	3,036,807	513,005	12,468,070
1913	5,098,874	643,761	1,029,809	709,256	901,273	2,823,316	514,303	11,720,592
1914	4,604,442	583,519	1,235,675	643,027	904,748	2,064,597	475,243	10,511,251
1915	4,790,319	581,653	729,268	415,831	627,030	1,734,091	372,877	9,251,069
1916	7,396,127	646,361	886,437	883,635	815,832	2,313,180	Not available	
Exports, national and nationalized								
1911	445,637	308,689	414,394	369,315	342,351	2,609,811	445,613	4,935,810
1912	800,803	421,568	315,643	461,910	327,513	3,032,362*	448,990	5,808,789
1913	842,655	371,112	208,951	446,565	277,877	2,818,455*	332,585	5,298,200
1914	646,342	423,275	211,700	376,029	377,401	2,084,794*	234,376	4,353,917
1915	971,798	394,042	231,223	655,547	410,472	1,676,439	182,351	4,521,872
1916	1,649,158	111,886	415,337	818,005	610,359	— †	Not available	
Re-exports								
1911	1,298,701	1,036	1,285,397	1,499	99,476	1,733,574	87,197	4,506,880
1912	2,058,258	14,255	1,791,226	401	76,827	1,772,946*	54,999	5,768,912
1913	3,480,490	1,667	1,222,619	5,281	124,287	3,383,674*	60,119	8,278,137
1914	3,796,980	760	575,392	962	44,296	4,487,354*	28,024	8,933,768
1915	5,119,014	9,024	93,837	2,971	111,448	5,283,081	15,265	10,634,640
1916	6,754,499	170	209,192	972	142,814	— †	Not available	
International Transit								
1911	26,133,380	—	169,664	—	—	6,944,990	120	33,248,154
1912	22,735,431	—	333,548	—	—	6,857,484*	7	29,926,470
1913	23,275,076	—	537,175	—	—	7,710,374*	—	31,522,625
1914	17,903,214	—	213,038	—	—	5,682,158*	—	23,798,410
1915	10,818,837	—	853,055	—	—	3,890,280	—	15,562,172
1916	14,667,833	—	1,267,997	—	—	— †	Not available	

* The figures for the years 1912, 1913, and 1914 are taken (with corrections) from *Estatística do Commercio e Navegação Provincia de Moçambique* (1916). They do not include the value of gold and silver, in bar or bullion. The figures for 1916 are taken from American Commerce Reports, Supplement 76 a, March 11, 1918.

† Exports, re-exports, and transit goods from Beira in 1916 totalled 12,168,992 escudos.

TABLE III. RETURN OF SHIPPING VISITING LOURENÇO MARQUES, 1909-13
(showing number and nationality of vessels and tonnage of cargo discharged and shipped)

A. VESSELS ENTERED: CARGO DISCHARGED.

Year.	Portuguese.		British.		German.		French.		Scandinavian.		Russian & other Nationalities.		Total.	
	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.
1909	162	14,978	278	292,950	68	78,867	4	2,246	41	51,721	8	10,257	561	451,019
1910	190	21,186	320	376,732	77	99,833	11	6,473	33	44,982	6	7,048	637	556,254
1911	176	22,214	327	296,055	81	93,600	13	4,266	30	37,499	4	4,698	631	458,332
1912	243	24,669	329	208,230	78	72,280	11	1,483	27	25,141	8	9,694	696	341,497
1913	246	27,212	403	221,882	86	86,988	7	234	34	45,229	8	7,263	784	388,808

B. VESSELS CLEARED: CARGO SHIPPED.

Year.	Portuguese.		British.		German.		French.		Scandinavian.		Russian & other Nationalities.		Total.	
	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.
1909	174	44,051	202	108,325	54	4,922	1	2	19	2,924	5	5,184	455	165,408
1910	202	50,025	222	96,406	63	4,102	5	4	27	5,124	2	269	521	155,930
1911	194	56,526	236	65,988	62	1,899	5	787	9	622	3	151	509	125,973
1912	237	68,257	329	221,122	79	8,564	11	6,210	28	34,384	7	170	691	338,707
1913	246	61,984	403	433,363	86	24,571	7	149	32	82,988	8	11,427	782	614,482

TABLE IV. RETURN OF SHIPPING VISITING BEIRA, 1913-16

(showing number and nationality of vessels and tonnage of cargo discharged and shipped)

A. VESSELS ENTERED: CARGO DISCHARGED.

Year.	Portuguese.		British.		German.		French.		Scandinavian.		American.		Not specified.		Total.	
	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.
1913	93	4,157	236	103,062	197	23,814	—	—	—	—	—	—	8	5,909	534	136,942
1914	121	6,123	224	61,996	143	17,825	1	—	10	6,337	—	—	—	—	499	92,281
1915	116	3,539	202	43,803	—	—	1	56	23	3,963	1	983	1*	67*	344	52,411
1916	112	2,287	212	40,238	—	—	1	158	27	2,770	1	—	1*	120*	354	45,573

B. VESSELS CLEARED: CARGO SHIPPED.

Year.	Portuguese.		British.		German.		French.		Scandinavian.		American.		Not specified.		Total.	
	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.	No.	Cargo.
1913	94	5,504	231	55,358	196	22,057	—	—	—	—	—	—	8	4	529	82,923
1914	120	7,343	221	66,456	141	14,737	1	—	10	3,821	—	—	—	—	493	92,357
1915	116	6,696	200	120,506	—	—	1	14	23	8,914	1	$\frac{1}{2}$	1*	$\frac{1}{2}$ *	342	136,131
1916	111	20,341	213	106,197	—	—	1	1	27	11,840	1	2,402	1*	1*	354	140,782

* Japanese.

TABLE V. RETURN OF SHIPPING ENTERING PORTS OF STATE-ADMINISTERED TERRITORIES¹ OF PORTUGUESE EAST AFRICA, 1911-15

(showing number and tonnage of vessels entering, and tonnage of cargo discharged and shipped)

Year.	Portuguese.				British.				German.			
	No.	Tonnage.	Cargo discharged.	Cargo shipped.	No.	Tonnage.	Cargo discharged.	Cargo shipped.	No.	Tonnage.	Cargo discharged.	Cargo shipped.
1911	659	693,788	43,403	87,990	464	1,850,305	299,483	70,844	345	1,113,068	106,221	28,801
1912	1,031	754,256	59,362	97,145	484	1,787,981	213,857	227,554	328	1,096,765	25,906	43,445
1913	985	724,289	57,668	96,224	497	2,156,418	234,085	436,084	309	986,609	106,602	61,836
1914	917	674,399	58,582	106,504	461	2,130,290	173,636	618,268	229	764,491	70,450	48,169
1915	831	687,636	66,754	137,427	384	1,274,553	123,941	391,393	—	—	—	—

Year.	Norwegian.				Other Nationalities.				Total.			
	No.	Tonnage.	Cargo discharged.	Cargo shipped.	No.	Tonnage.	Cargo discharged.	Cargo shipped.	No.	Tonnage.	Cargo discharged.	Cargo shipped.
1911	35	52,825	25,057	1,486	114	72,324	25,604	1,939	1617	3,782,310	499,768	191,060
1912	40	62,903	16,331	26,235	106	83,521	26,107	18,985	1989	3,790,426	341,563	413,364
1913	35	65,130	34,838	73,788	84	74,348	10,362	23,007	1910	4,006,794	443,555	690,939
1914	32	49,890	11,047	37,410	79	75,701	12,480	37,482	1718	3,694,771	326,195	847,833
1915	75	89,436	20,953	48,424	44	71,428	19,675	34,199	1334	2,123,053	231,323	611,443

NOTE.—This table shows the tonnage of cargo shipped, but not the number or tonnage of vessels departing. The latter differ only slightly from the number and tonnage, shown above, of vessels entering.

¹ The ports dealt with in this table include Lourenço Marques, Inhambane, Chinde, Quelimane, Mozambique, and some small ports with local trade.

AUTHORITIES

HISTORICAL

- ALMADA NEGREIROS, A. de *La Mozambique*. Paris, 1904.
Anuario Colonial, 1916. Lisbon, 1916.
- BARBOSA, DUARTE. *O Livro de Duarte Barbosa*: Portuguese text in vol. ii of *Collecção de Noticias das Nações Ultramarinas*. 7 vols. Lisbon, 1812.
 English translation from a Spanish MS. in Hakluyt Society, vol. xxxv; *Coasts of East Africa and Malabar*; ed. Stanley.
- BARROS, J. DE. *Decadas da Asia*. 4 vols. Lisbon and Madrid, 1553-1615. 2nd ed., Lisbon, 1778-88.
- BENT, J. T. *Ruined Cities of Mashonaland*. London, 1892.
- CAPELLO, B., and IVENS, R. *De Angola á Contra-Costa*. Lisbon, 1886.
- CARVALHO E VASCONCELLOS, E. J. DE. *As Colonias Portuguezas*. Lisbon, 1896; 2nd ed., 1903.
Consular Report on Mozambique, 1909.
- CORREA, G. *Lendas da India*. 4 vols. Lisbon, 1858-60.
- EDRISI [Muhammad ibn Muhammad, Al-Idrisi]. *Géographie*; French translation from Arabic by A. Jaubert. 2 vols. Paris, 1836.
- GOES, D. DE. *Chronica del Rei Emmanuel*. Lisbon, 1567.
- HALL, R. N. *Prehistoric Rhodesia*. London, 1909.
- HERTSLET, SIR E. *The Map of Africa by Treaty*. 2nd ed. London, 1909.
- IBN BATUTAH. *Voyages*. Arabic text and French translation by C. Defrémery and B. R. Sanguinetti. 4 vols. Paris, 1853-8.
- JAYNE, K. G. *Vasco da Gama and his Successors*. London, 1910.
- JOHNSTON, SIR H. H. *The Colonization of Africa by Alien Races*. Cambridge, 1913.
- KELTIE, SIR J. S. *The Partition of Africa*. 2nd ed. London, 1899.

- LINSCHOTEN, J. H. VAN. *Voyage to the East Indies*. From the English translation of 1598; ed. Burnell and Tiele. 2 vols. [Hakluyt Society, 70, 71]. London, 1885.
- LUGARD, SIR F. D. *Rise of our East African Empire*. 2 vols. London, 1893.
- LYNE, R. N. *Zanzibar*. London, 1905.
- *Mozambique: its Agricultural Development*. London, 1913.
- MACIVOR, R. *Mediaeval Rhodesia*. London, 1909.
- MAS'UDI, EL. *Géographie*. French translation of Arabic Text (fourteenth century); ed. Maynard and Courteille, as *Les Prairies d'Or*. 9 vols. Paris, 1861-77.
- Mozambique Company. O Territorio de Manica e Sofala e a administração da Cia. de Moçambique*. Lisbon, 1902.
- O'NEILL. *The Mozambique Coast* (Geographical Journal, 1882, pp. 595-648).
- SALÎL IBN RAZÎK. *History of the Imâms and Seyyids of 'Omân, 661-1856*. Translated by G. P. Badger [Hakluyt Society, 44]. London, 1871.
- SERPA PINTO, A. DE. *How I crossed Africa*. 2 vols. London, 1881.
- STIGAND, C. H. *The Land of Zinj*. London, 1913.
- THEAL, G. M. *History and Ethnography of South Africa*. 2nd ed. 3 vols. London, 1907.
- VASCO DA GAMA, D. *Roteiro da viagem á India*; ed. D. Kopke and A. da Costa Paiva. Porto, 1838.
- *The First Voyage of Vasco da Gama*; ed. Ravenstein. [Hakluyt Society, 99]. London, 1898.
- WHITEWAY, R. S. *Rise of the Portuguese Power in India, 1497-1550*. London, 1899.
- WORSFOLD, W. B. *Portuguese Nyassaland*. London, 1899.

ECONOMIC

- African World Annuals, 1903-18*. London.
- Anuario Colonial, 1916*. Lisbon, 1916.
- Beira News*. Beira.
- Bulletins of the Imperial Institute*. London.
- Delagoa Directory, 1917*. Lourenço Marques.
- Diplomatic and Consular Reports*. Reports on the Trade and Commerce of Lourenço Marques and other Portuguese possessions in East Africa. Annual Series.

- Lourenço Marques Guardian*. Lourenço Marques.
Rapports Commerciaux (France). Mozambique, 1911.
Rivista Colonial. Lisbon.
Supplement to Commerce Reports. Annual Series, 76a, Portuguese East Africa. Washington, 1918.
BROWN, A. SAMLER and G. G. *Guide to South and East Africa*. London, 1918.
LYNE, R. N. *Mozambique : its Agricultural Development*. London, 1913.
MARVAUD, ANGEL. *Le Portugal et ses Colonies : étude politique et économique*. Paris, 1912.
MAUGHAM, R. C. F. *Portuguese East Africa*. London, 1906.
—— *Zambezia*. London, 1910.
—— *Wild Game in Zambezia*. London, 1914.
MEYER, PROFESSOR HANS. *Das portugiesische Kolonialreich der Gegenwart*. Berlin, 1918.
WORSFOLD, W. B. *Portuguese Nyassaland*. London, 1899.

MAPS

Mozambique is covered by 2 sheets (Mozambique and Limpopo) of the War Office Map of Africa (G.S.G.S. 2871), on the scale of 1 : 2,000,000 (1919), except for the narrow strip of country between lat. 12 S. and the Rovuma river, which is shown on the sheet 'Zanzibar'.

There are Portuguese maps of Mozambique in the 'Atlas Colonial Português', published by the Ministerio das Colonias, Comissão de Cartografia, at Lisbon in 1914; one of these maps is in one sheet on the scale of 1 : 4,500,000, and the others in two sheets on the scale of 1 : 3,000,000.

One sheet of the 'International' series on the scale of 1 : 1,000,000, viz. sheet South F. 36 'Inhambane', has been prepared, and was published by the Ministerio das Colonias, Comissão de Cartografia, at Lisbon in 1912.

INDEX TO VOL. XIX.

The figures in heavy type give the number of the book referred to, those in lighter type the page.

A.

- Abercorn, **121**, 56.
 Aberdeen Line, **121**, 54.
 Abreu, d', West Coast of Madagascar visited by, 1506, **115**, 13.
 Abyssinia, Portuguese scheme to conquer, **120**, 18.
 Accra, cables, **119**, 20, **120**, 38.
 Achada das Furnas, plateau, **116**, 4.
 Achada Falcão, plateau, **117**, 3.
 Açores or Hawk Islands, *see* Azores.
 Acunha, Tristão d', *see* Cunha.
 Aden, failure of Portuguese attempt to take, 1513, **115**, 18; instructions of King of Portugal *re*, **115**, 17; under local chiefs, **115**, 16; submits to Portuguese and expels Turks, **115**, 21; taken by Piri Bey, 1550, **115**, 21.
 Adilshāhī, Kingdom of, **115**, 15, 17.
 Administration, Angola, **120**, 26-7; Cape Verde Islands, **117**, 10-2, Government removed from San Thomé to Príncipe (1735), brought back (1852), **119**, 7; Mozambique, **121**, 34, 90, 93; Portuguese Guinea, **118**, 10, 11-2; San Thomé and Príncipe, **119**, 10, 13, 17; San Vicente, **117**, 11.
 Adra, port, secured by Portugal, **119**, 8.
 Adriatic, settlers from, **121**, 29.
 Aerated waters, manufacture, **116**, 52.
 Afonso, Diogo, discovers northern group of Cape Verde Islands, **117**, 9.
 Afonso V, King of Portugal, death, 1481, **115**, 5-6, **117**, 8, **119**, 5.
 Africa, *see also* East Africa, North Africa, South Africa, and West Africa; Portuguese possessions, **115**, 29, emigration to, **116**, 27; slaves from, **117**, 9.
 African Direct Telegraph Co., **117**, 19, **118**, 18.
 African Trans-continental Telegraph system, **121**, 55.
 Agadir incident, **117**, 16.
 Agaves, cultivation, **120**, 50.
 Agencia Colonial Ltda., **120**, 76.
 Agna, Serra d', cherry plantations, **116**, 43.
 Agricultural enterprise, as field for investment, **120**, 80.
 Agricultural implements and machinery, import, duty free, **117**, 34, **121**, 87.
 Agriculture, Angola, **120**, 47-60; Azores, **116**, 27; Cape Verde Islands, **117**, 21-4; Madeira, **116**, 41-8; Mozambique, **121**, 59-72; Portuguese Guinea, **118**, 20; San Thomé and Príncipe, **119**, 21.
 Agua de Pão, Serra de, **116**, 4.
 Agua Izé, railway, **119**, 14.
 Ahmādnagar, Nizamshāhī Kingdom of, **115**, 15.
 Ajuda, annexed by France, 1892, **119**, 9; incorporated in province of San Thomé and Príncipe, **119**, 8.
 Alagoa, **116**, 8.
 Albergaria, Lopo Soares d', succeeds d'Albuquerque, **115**, 18.
 Albuquerque, Afonso d', **115**, 12; enterprises of, **115**, 14, 17, 18; Arab fort taken with help of fleet under, **115**, 14; accompanies Tristão da Cunha to Sokotra, **115**, 16; as Governor of Portuguese Indian possessions, **115**, 16, 17; 18; mutiny and desertion in fleet of, **115**, 17; death of, **115**, 18.
 Albuquerque, Francisco d', expedition to Calicut, 1503, **115**, 14.
 Alcohol, abolition of manufacture, compensation, **120**, 55-6; duty, **118**, 33-4, **120**, 81; export, **116**, 32, 33, **121**, 85; import, **116**, 34, **118**, 30; industry, **117**, 30; natives and, **118**, 27.
 Ali Bey, Mogadishu taken by, **115**, 13; raid on East African ports by, **115**, 22.
 Almams of Fouta-Djallon, treaty between Government of French Republic and, **118**, 37.
 Almeida, Francisco d', in East Africa, **115**, 11, 12; explorations of, **115**, 15-6; Viceroy, 1505, of Portuguese Indian possessions, **115**, 15-6; death of, **115**, 17.
 Almeida, Lourenço d', **121**, 24; defeat of Portuguese fleet under, and death of, 1507, **115**, 16; fame of, **115**, 15.
 Aloes, cultivation, **116**, 45.
 Alto, Pico, **116**, 5.

Alum, **116**, 30.
 Amatongas, *see* Tongas.
 Amazon river, **115**, 22.
 Ambaca, colony, **120**, 19; natives, **120**, 41-2.
 Ambassa; *see also* San Salvador; cathedral built, 1490, **115**, 8, **120**, 14; fort, **115**, 8, **120**, 14; native bishop, **120**, 14; renamed San Salvador, **120**, 14.
 Amboim, **120**, 42; coffee cultivation, **120**, 49.
 Amboina, taken by Dutch, 1605, **115**, 24.
 Ambriz, **119**, 19; coasting services, **120**, 37; fish, **120**, 66, 67; population, **120**, 11; port, **115**, 27, **120**, 5, 36; tariff, **120**, 79, 80-1; trade, **120**, 68-9, 75.
 Ambriz district, **120**, 19, 22.
 Ambrizette, **120**, 57; coasting services, **120**, 37; port, **120**, 5; salt, **120**, 71; trade, **120**, 58-9, 75.
 America, cable, **121**, 55; North and South, Cabo-Verdean emigrants, **117**, 20.
 American missions, **121**, 33.
 American traders, **120**, 80.
 Americanos, as citizens, **116**, 27.
 Americans, whaling, **120**, 66, 67.
 Amparo estate, Belgian, **119**, 30.
 Amsterdam, shipping services, **116**, 40.
 Andara, **120**, 2, **121**, 97, 100.
 Andrade Corvo, Serra, gold, **120**, 70.
 Anglican Church, Madeira, **116**, 22.
 Anglo-Portuguese Commission, **120**, 24, **121**, 96-7.
 Angoche (Angosh, Parapat) Island, **121**, 7, 50, 52, 80, 81, 82; coco-nut palms, **121**, 64; harbour, **121**, 50; Mohammedan population, **121**, 33; wages round, **121**, 58; whaling, **121**, 76.
 Angola (Portuguese West Africa), *see also* Contents **120**; **115**, 8, 27, **121**, 22, 54, 100; Cabo-Verdean immigrants, **117**, 20; Central, **120**, 4; Christianity accepted by, **115**, 23; Dutch in possession of part, **115**, 26; emigrants, effort to divert, to, **116**, 19; expedition to expel Dutch, 1640, **115**, 25; financial help, **121**, 90; labour, **119**, 21, 22; limits of, treaties *re*, **120**, 23; market for salt fish, **117**, 28; missions, **120**, 14; "Mittel-Afrika" scheme, inclusion of, **115**, 29; Northern, **120**, 3-4; Portuguese half-castes from, **121**, 30; Portuguese

Angola—*cont.*

rule, **115**, 28, **118**, 13; servical recruitment, **119**, 10; settlement, **115**, 23; slave trade, **115**, 27; South, **120**, 4-5, British Consular Report, **120**, 30; steamers to, **117**, 18; trade, **117**, 18, **119**, 19; wireless connection, **121**, 55.
 Angola Coaling Co., **120**, 77.
 Angola, King of, and cowrie trade, **115**, 23, **120**, 15; Portuguese massacred by, **120**, 15.
 Angola and Portuguese Islands, German claims *re*, **121**, 84.
 Angolares, **119**, 3, 4; and fishing industry, **119**, 28; nomadic and prefer piecework, **119**, 21; trouble with, **119**, 7.
 Angonis, tribe, **121**, 16.
 Angoya, **121**, 23.
 Angra (Angra do Heroismo), banks, **116**, 36; bishops suffragans to see of Lisbon, **116**, 23; capital of Azores, **116**, 18, 19; climate, **116**, 6; exports, **116**, 32; population, **116**, 8; port, **116**, 17, 25; seat of bishopric, **116**, 8.
 Angra Bay, **116**, 4.
 Angra district, emigrants, **116**, 26; manufactures, **116**, 31.
 Angra do Negro, bay, **120**, 19.
 Angra de San João, harbour, **119**, 17.
 Angwa, river, **121**, 3.
 Anhaya, Pero d', **121**, 23; fortress of Sofala built by, 1505, **115**, 10.
 Animals, duty free, **117**, 34.
 Anjos, sailings to, **116**, 40.
 Anna de Chaves, *see* San Thomé, port and town.
 Anna de Chaves, bay of, trade and harbour facilities, **119**, 16.
 Anno Bom (Annobon), ceded to Spain, 1778, **119**, 6; discovery, **115**, 6, **119**, 5-6.
 Antonia, Pico, **117**, 3.
 Antonio, Dom, claim taken up by Azores, 1580, **116**, 17; England takes up cause of, **115**, 24; • takes refuge in Terceira, **116**, 17.
 Anuario Colonial, **117**, 7, **120**, 40, 67, 78, 79, 82-3.
 Anyanjas, *see* Nyasas.
 Apples, cultivation, **117**, 22.
 Apprenticeship, **117**, 12, **118**, 12.
 Apricots, export, **116**, 28.
 Arab traders, **115**, 9-10, **121**, 23, 36.
 Arabian Coast, mastery of, **115**, 19.
 Arabic letters, use of, **121**, 33.

Arabs, **121**, 15; of Fartak, Portuguese take fort held by, **1506**, **115**, 14; Portuguese seize islands occupied by, **115**, 9-10; suzerainty over ports, **115**, 11.
 Aragão, Rebello de, attempts to cross from Angola to Sena, **1606**, **120**, 17.
 Arame, Custom house, **118**, 31.
 Arco de Calheta, **116**, 40.
 Argentine Navy, Cabo-Verdeans in, **117**, 20.
 Argentine Republic, imports from, **116**, 58, **117**, 33.
 Arguin, fort, built, **115**, 5, English destroy, **115**, 24.
 Arguin banks, fishery, **117**, 27.
 Arimba, harbour, **121**, 52.
 Armada, Rio da, **118**, 3.
 Armadas, drain on Portuguese resources, **115**, 9.
 Arms, ammunition, and gunpowder, duty, **120**, 81.
 Arriero, Pico, **116**, 38.
 Arrowroot, production, **116**, 45.
 Aruangua (Loangwa) river, **120**, 21, **121**, 3, 95.
 Ascension, cable, **116**, 41, **117**, 18, **118**, 18.
 Asiatics and half-castes, **121**, 15-6.
 Asses, import, **118**, 21.
 Assine, *see* Axem.
 Associação de Logistaas, **116**, 31.
 Atlantic Islands, **115**, 4-5; in Portuguese possession, **115**, 29.
 Auriferous quartz, **121**, 76.
 Australia, cable, **121**, 55; trade, **121**, 54.
 Autonomia Michaelense, organisation for promoting local interests, **116**, 31.
 Axem (Assine), gold trade, **115**, 6.
 Axes, **121**, 78.
 Azores (Açores or Hawk Islands), *see also* Contents **116**; discovery of, **115**, 4; emigration, **120**, 20; importance of, **115**, 29; marked as necessary for realisation of German projects, **115**, 29; population of, **115**, 4; Portuguese suffer from operation of English fleets round, **115**, 24.
 Azores Coaling Co., Ltd., **116**, 32.
 Azurara, **118**, 8; Chronicle of, **115**, 5.

B.

Bāb-el-Mandeb, Straits of, **115**, 16, 18.
 Bacurocas, **120**, 10.

Badajoz, Junta of, Tordesillas Treaty revised by, **1524**, **115**, 19.
 Bafata, **118**, 3; capital of circumscription of Geba, **118**, 15, 28; custom house, **118**, 31; schools, **118**, 12; telegraphic connection, **118**, 16.
 Baghdad, capture of, **115**, 19.
 Bahia, ceases to be capital, **1763**, **115**, 28; Dutch attack fails, **1638**, **115**, 25.
 Bahia dos Tigres (Tiger Bay), **120**, 36, 37, 44; railway, **120**, 34.
 Bahia de Todas os Santos (Bahia), **115**, 23.
 Bahmani, Kingdom of, **115**, 15.
 Bahrein, expedition, **1521**, **115**, 19.
 Bailundo, gold, **120**, 70; iron, **120**, 70; mission, **120**, 26; railway, **120**, 33; road, **120**, 30.
 Baiotes, tribe, **118**, 5.
 Baixo de João Valente (Leitão), submerged reef, **117**, 1.
 Baixo Island (Ilheu do Baixo), **116**, 10; lime from, **116**, 50.
 Balantas, tribe, **118**, 5, 6, 15, 19-21, 26, 27.
 Bambadinca, telegraphic connection, **118**, 16.
 Banana, cable connection, **119**, 20.
 Bananas cultivation, **116**, 14, 42, 43, **117**, 22, **121**, 71; export, **116**, 28, prohibited, **116**, 43; preserving, **119**, 25-6.
 Banco Aliança, **116**, 36.
 Banco Colonial Portuguese, **120**, 84-5.
 Banco Commercial de Lisboa, **116**, 36.
 Banco de Lisboa e Açores, **116**, 36.
 Banco Michaelense, **116**, 36.
 Banco Nacional Ultramarino, **116**, 59, **117**, 31, 35, 36-7, **118**, 34, **119**, 35-6, **120**, 84, **121**, 91, 92.
 Bandire, station re-opened, **121**, 30.
 Bangweulu, lake, **120**, 21.
 Banhuntos or Banhuns, tribe, **118**, 6.
 Bank of Portugal, **116**, 36, 59, **117**, 36.
 Banking, Angola, **120**, 84; Azores, **116**, 31-2, 36; Cape Verde Islands, **117**, 35-7; Madeira, **116**, 59; Mozambique, **121**, 92; Portuguese Guinea, **118**, 34; San Thomé and Príncipe, **119**, 35-6.
 Banque de Reports de Fonds Publics et de Dépôts, **119**, 30.
 Bantang, Portuguese settlement, **115**, 19.

- Bantus, **120**, 9, **121**, 28; animistic beliefs, **121**, 33; language, **119**, 4, **120**, 9, **121**, 15-18.
- Banyans (Baneanes), non-Christian Hindus, *see also* Hindu traders; **121**, 15-6, 26, 79, 80, 82, 92, 93.
- Barāwa, **115**, 28; sacked by Tristão da Cunha, **115**, 12.
- Bark-cloth, **121**, 78.
- Barlavento, *see* Windward Islands.
- Barley, **116**, 27, 42.
- Barongas, *see* Tongas.
- Barotse Kingdom, **121**, 96; British rule, **120**, 23-4; interferences of Serpa Pinto, **120**, 24.
- Barotse land, arbitration *re* boundary, **121**, 31, 97; Protectorate of, **121**, 31.
- Barotse valley, **120**, 21.
- Barreto, Francisco, Captain-General, expedition under, **121**, 24-5.
- Barros, João de, **115**, 7, **118**, 8, **120**, 13, **121**, 27.
- Barros e Sousa de Mesquita de Macedo Leitão e Carvalhosa, M. F. de, **119**, 5.
- Bartholomeu Dias, harbour, **121**, 47.
- Barue, **121**, 12.
- Basalt, **116**, 30, 50.
- Baskets, industry, **116**, 31, 51-2, 53, **117**, 30, **121**, 77.
- Basra, capture, **115**, 19; rising, **115**, 21.
- Bassein, port, **115**, 15; ceded to Portugal, 1534-5, **115**, 20; taken by Mahrattas, 1739, **115**, 26.
- Basto, Commander Pinto, survey by, 1892, **119**, 17.
- Bathurst (Gambia), cable, **117**, 18, 19, **118**, 18.
- Batavia, founding of, 1619, **115**, 24.
- Bazaruto Bay, **121**, 52.
- Bazaruto islands, **121**, 7.
- Beans, cultivation, **116**, 27, **117**, 22, 27, **121**, 59; export, **116**, 32, 33, **121**, 86.
- Bedegal Point, **116**, 11.
- Beer and ale, **121**, 78; import, **121**, 87; trade, **120**, 74.
- Bees-wax, **121**, 60; export, **118**, 23, **120**, 60, 78.
- Beira, **121**, 5, 6, 7, 14, 54, 82; banks, **121**, 92; British merchants **121**, 81; cable station, **121**, 55; climate, **121**, 11, 12, 13; coasting steamers, **121**, 50; harbour, **121**, 39, 48; market, **121**, 80; population and nationalities, **121**, 14, 15, 20; railways, **121**, 2, 35, 40, 41, 43, 77, 81; settlers, **121**, 14;
- Beria—*cont.*
shipping, **121**, 105; trade, **121**, 62, 64, 71, 84; wages, **121**, 58.
- Beja, Duke of, Cape Verde Islands given to, 1489, **117**, 9.
- Belem, Lisbon, Colonial Botanic Garden at, **117**, 25.
- Belgian Congo, **120**, 48, 59, 85; boundary between Cabinda and, **120**, 1-2; conventions *re* Portuguese territory, 1885, **120**, 23, 25; oil palm, **120**, 53; railway, **120**, 33, 74.
- Belgium, agreement with, *re* stores, **120**, 76; consul of, **120**, 77; imports from, **116**, 58, **121**, 87; railway materials from, **119**, 14.
- Belgo-Portuguese frontier, agreements *re*, 1891, 1894, 1910, **120**, 2.
- Belmonte station, road, **120**, 30.
- Bembe, gum, **120**, 51; malachite, **120**, 68; oil palms, **120**, 52.
- Bemfeitoria, system of land tenure, **116**, 48-9.
- Benametapa (Monomotapa), Kingdom of, **115**, 10; failure of expeditions, **121**, 25; gold dust from, **121**, 23.
- Bengal, Moghul Emperor seizes Hugli Portuguese trading station, 1632, **115**, 26; Portuguese trade destroyed, 1632, **115**, 26.
- Bengo (Zenza) river, **120**, 32, 42; canalising of, **120**, 32.
- Benguella district, **120**, 57; disciplinary companies, **120**, 44; headquarters, **120**, 27; labour, **120**, 42; minerals, **120**, 69, 70; natives, **120**, 42; population, **120**, 11; Portuguese rule, extensions to South of, **115**, 27; towns and communications, **120**, 35.
- Benguella, port and town, **120**, 5, 18, 19, 36; cable, **119**, 20, 35, 38; Chamber of Commerce, **120**, 76; coasting service, **120**, 37; fish-curing and whaling industry, **120**, 66; population, **120**, 11; railway, **115**, 29, **120**, 8, 20, 29, 30, 33, 35, 36, 70, 73, 77; trade, **120**, 75; vice-consuls, honorary, **120**, 77.
- Benguella Velha, cattle breeding, **120**, 58.
- Benin, Kingdom of, Christianity not accepted by, **115**, 8.
- Bensaude & Co., **116**, 36.
- Berbers, Guanche affinity with, **115**, 4.

- Berge, Josua Van der, of Bruges (Jacques de Bruges), charter from Prince Henry the Navigator, **116**, 16; Flemish settlers brought to to Azores by, **116**, 16.
- Berlin Act, 1885, **120**, 23, **121**, 88.
- Bethencourt, Jean de, conquest and annexation of Canary Islands, **115**, 4-5.
- Bhatkal, port of, **115**, 15.
- Biafadas, tribe, **118**, 5, 6, 23, 26, 27; trade with Europeans, **118**, 26, 27.
- Biafra, Bight of (Gulf of Mafras), **119**, 1; discovery of islands in, by Portuguese explorers, **119**, 5.
- Big game hunting, licence, **120**, 84.
- Bihé (Ecovongo), **120**, 4, 21, 30; mission, **120**, 26; Patria Nova School, **120**, 28; Portuguese influence non-existent, 1877-8, **120**, 24.
- Bijagos (Bissagos) Islands, **115**, 5, **118**, 2, 3; cocoa growing, **118**, 20; special permission required to visit ports of, **118**, 16.
- Bijagos (Bissagos) tribe, **118**, 6, 27.
- Bijapur, Adilshāhī kingdom of, **115**, 15, 17.
- Biliosa, remittent fever, **117**, 5.
- Bissagos, *see* Bijagos.
- Bissau, port and town, **118**, 3, 7, 15; cable, **117**, 19, **118**, 18; centre of slave trade, 1690, **118**, 9; commercial centre, **118**, 28; commercial houses and native retail traders, **118**, 27; custom house, **118**, 31; fish trade, **118**, 25; municipality for local affairs, **118**, 12; open port, **118**, 16; Papeis in, **118**, 19; posts and telegraph office, **118**, 16; railway suggested, **118**, 16; sailings, **118**, 18; schools, **118**, 12; store-houses, **118**, 17; sugar-cane cultivation, **118**, 22.
- Bitinga, tribes, **120**, 53-4.
- Bitumen, *see* Petroleum.
- Black-water fever, **118**, 5, **119**, 3, **120**, 9, **121**, 13.
- Black wattle, **116**, 46, **121**, 71.
- Black wood (Pinki), export, **121**, 73.
- Blanco, Cape, **115**, 5-6.
- Blandy Bros., sailings to Madeira, **116**, 41.
- Blandy & Co., **116**, 54.
- Blankets, import, **120**, 76.
- Blantyre, railway terminus, **121**, 42; telegraph system, **121**, 55.
- Boa Vista, **117**, 1; circle, **117**, 11; colonised, 1490, **117**, 9; description, **117**, 3; emigrants, **117**, 21; gold, **117**, 28; jurisdiction, **117**, 11; lime, **117**, 29; population, **117**, 7; postal arrangements, **117**, 13; pottery, **117**, 29, clay for **117**, 28; purgueira oil industry, **117**, 30; salt, **117**, 7, 29.
- Boats, import, **117**, 33.
- Bocage (Bokazh), harbour, **121**, 52.
- Boene harbour, **121**, 52.
- Boers, **120**, 10; accept Portuguese rule, **120**, 20; colonies, **120**, 9, 10; settlement of, Transvaal, **120**, 20.
- Bokazh harbour, *see* Bocage.
- Bolama, **118**, 3, 6, 7, 27, 28; cable, **117**, 19, **118**, 18; capital of Portuguese Guinea, **118**, 11; commercial houses and native retail traders, **118**, 27; custom house, **118**, 31; England claim to, but award to Portugal, **118**, 9; fish trade, **118**, 25; ground-nut growing, **118**, 21; municipality for local affairs, **118**, 12; National Press, apprenticeship institution, **118**, 12; naval workshops, **118**, 17; open port, **118**, 16; posts and telegraph office, **118**, 16; sailings, **118**, 18; schools, **118**, 12; telegraph station, apprenticeship institution, **118**, 12.
- Bolola river, **118**, 3, 15.
- Bombay, **115**, 15, **121**, 92; shipping service, **121**, 54; transferred to England, 1662, **115**, 26.
- Bonny, cable, **119**, 20.
- Books, import, **121**, 88.
- Booth Line, **116**, 40.
- Boots and shoes, duty, **120**, 79-80; export, **116**, 56; import, **117**, 33, **121**, 86, 88; trade, **120**, 74.
- Boror Co., **121**, 65, 66, 94.
- Bows and arrows, making of, **121**, 78.
- Bradshaw, Dr., and rescue of Serpa Pinto, **120**, 24.
- Braga, Senhor Theophilo, President of Portugal, native of San Miguel, **116**, 23.
- Braganza, Court of, removal to Brazil, 1808, **115**, 28.
- Brames (Buramos or Mancanhas), **118**, 6; contract labour, **118**, 19.
- Branco, **117**, 1; description, **117**, 2; uninhabited, **117**, 7.

- Brandy, duty, **120**, 79.
 Brass-wire ornaments, **121**, 78.
 Brava, **117**, 1, 28; circle, **117**, 11; cultivation, **117**, 22, 23; description, **117**, 4; emigrants, **117**, 20, 21; lime, **117**, 29; mineral springs, **117**, 29; population, **117**, 7; squatters' tenure, **117**, 26; stone, **117**, 28; straw hat manufacture, **117**, 24, 30.
 Brazil, **121**, 22; Braganza Court removed to, **115**, 28; colonists from, **120**, 19-20; discovery of, 1500, **115**, 9, 22, **120**, 14; Dutch attacks on, **115**, 25; Dutch efforts concentrate on, **115**, 27-8; Dutch expelled from, 1645, **115**, 26-7; emigration to, **116**, 19, 27, 41, **117**, 20, **120**, 20; French colonisation futile, 1555-7, **115**, 23; Jesuit missions in, **115**, 23; Portuguese colonisation of, 1530, **115**, 22, **120**, 14; Portuguese recover whole of, 1654, **115**, 25; prosperity increases, **115**, 28; separate Government, 1822, **115**, 28-9; slaves imported into, **115**, 23, **118**, 9; Southern provinces remain under Portuguese rule, 1638, **115**, 25; sugar cultivation, **115**, 23, **119**, 7; trade with, **116**, 51, 56, **121**, 87.
 Brasileiros, as citizens, **116**, 27.
 Breadfruit, cultivation, **117**, 22.
 Bretanha, **116**, 16.
 Breton settlement, tradition of, **116**, 16.
 Brewery, **116**, 31.
 Bricks, manufacture, **116**, 31, **118**, 35, **121**, 79.
 Bridges' decorticating machines, **121**, 68.
 Brije (Mbrije) river, **120**, 32; malachite, **120**, 68.
 Brite, D'Abreu de, chain of ports across continent, scheme of, 1592, **120**, 17.
 British, in Mozambique, **121**, 14.
 British Africa, boundary question, **121**, 32.
 British Consul-General, Madeira, **116**, 21.
 British Crown Colonies, **121**, 90.
 British East Africa, **115**, 28.
 British factory in Madeira, rights and work of, **116**, 21-2.
 British firms, coal industry in hands of, **117**, 31; decorticators from, **121**, 67.
 British goods, import, **119**, 33, **121**, 87.
 British Guiana, Cabo-Verdean emigrants, **117**, 20; emigration to, **116**, 41.
 British interests, Angola, **120**, 77; Mozambique, **121**, 81.
 British missions, **121**, 33.
 British Nyasaland, **121**, 37, 38, 41, 48, 75; tobacco export, **121**, 69.
 British possessions, exports to, **117**, 32, **119**, 33; imports from, **117**, 32, **121**, 86-7.
 British South Africa, **120**, 21.
 British South African Banks, **119**, 36.
 British South African Co., agreement between German Government and, **120**, 34.
 British South African Railway connections, **120**, 33.
 British traders, **120**, 80.
 Bruges, Jacques de, *see* Berge, Josua Van der, of Bruge.
 Brussels Act, 1890, declaration, *re* import duties, **121**, 88.
 Brussels, Conferences, **120**, 81.
 Buba, road, **118**, 14; schools, **118**, 12; telegraphic connection, **118**, 16.
 Bucknall Line, **121**, 54.
 Bugio, **116**, 11.
 Building materials, import, **120**, 79, **121**, 48, 87.
 Bunda speech, **119**, 3.
 Buramos, *see* Brames.
 Burgundy, Duchy of, Fayal attached to, **116**, 7.
 Burnay & Co., dairies, **116**, 46.
 Bushmen, **120**, 9, 10, **121**, 18, 23.
 Butter, export, **116**, 28, 32, 33, 46, 55, 56; import, **121**, 86, 87; manufacture, **116**, 46.
 Buzi river, **121**, 10, 38; sugar factories, **121**, 62.

C.

- Cabbages, cultivation, **116**, 43, 44.
 Cabeça da Cobra, **120**, 52.
 Cabinda, **120**, 3, 36; cargo to, **119**, 19; cocoa, **120**, 48; complaints *re* vessels not calling for produce, **120**, 75; delimitation of boundaries, **120**, 25; French expedition takes, **120**, 25; headquarters

Cabinda—cont.

- of Congo district, **120**, 27; included in discoveries of Diogo Cão, **120**, 24; naval expedition occupies and erects fort, 1783, **120**, 19; officially known as the District of Congo, **120**, 24; population, **120**, 11; ports and towns, **120**, 75; Portuguese authority over, **120**, 26; surrendered to French, **120**, 19; trade, **120**, 49, 76, 85.
- Cables**, Angola, **120**, 35; Azores, **116**, 26; Cape de Verde Islands, **117**, 18; Madeira, **116**, 41; Mindello, **117**, 7; Mozambique, **121**, 55; Portuguese Guinea, **118**, 18; San Thomé, **119**, 20; San Vicente, **117**, 18.
- Cabral**, Gonçalves V., explorations and discoveries, **115**, 4, **116**, 15-6; commissioned to colonise San Miguel and founds city of Ponta Delgado, **116**, 16.
- Cabral**, Pedro Alvares, expeditions and discoveries, 1500, **115**, 9, 14, 22, **121**, 23.
- Cacao** beans, cultivation, **121**, 61.
- Cacao** plantations, labour, **121**, 57.
- Cacheu**, **118**, 3, 17; once capital of Guinea, **118**, 28; custom house, **118**, 31; factory, **118**, 9; Felupes take firewood to, **118**, 27; ground-nut growing, **118**, 21; Grumetes in, **118**, 7; open port, **118**, 16; post office, **118**, 16; schools, **118**, 12.
- Cacheu** river, **118**, 1, 3, 14-15, 15; special permission required to visit ports of, **118**, 16.
- Cacine**, *see* Cassini.
- Caconda** mission, **120**, 26; Norton de Matos School, **120**, 28.
- Caçuta**, Ambassador from King of Congo, baptized in Portugal and takes name of Dom João, **120**, 14.
- Cadamosto** (a Venetian), **117**, 8.
- Cafres**, *see* Bantu tribes.
- Cafuche**, Chief of Cambambe, Angola threatened by, **120**, 16-7; defeat of, **120**, 17.
- Caixa Economica** (Bank), **116**, 36.
- Caixa Económica** de San Thomé, **119**, 36.
- Caixa Esperança** (Bank), **116**, 36.
- Cajet**, river, **118**, 1, 2, 3.
- Calculating** machines, import, **121**, 88.
- Calcutta**, **121**, 92; shipping services, **121**, 54.

- Caldeira**, Antonio, visits Umbeluzi river, **121**, 27.
- Caldeira**, C. J., account of, **120**, 26, 27.
- Caldeira** de Santa Barbara, extinct volcano, **116**, 2, 3; mountain, **116**, 4.
- Calheta**, population, **116**, 14.
- Calheta** Point, **116**, 11.
- Calicut**, **115**, 12; coasting craft join Egyptian fleet against Portuguese, 1507, **115**, 16; Hindu kingdom of, **115**, 14; Moham-medan traders' close relations with, **115**, 14; Portuguese and, **115**, 14, 15, 16.
- California**, emigration to, **116**, 41.
- Cam**, Diogo, *see* Cão.
- Camacha**, **116**, 14; manufacture of chairs, baskets, etc. by people of, **116**, 51-2.
- Camara**, João da, *see* Gonçalves.
- Camara** family, Madeira under, **116**, 21.
- Camara** dos Lobos Marinhos, **116**, 10, 20; centre of vine-growing district, **116**, 14; population, **116**, 14; road, **116**, 37; sailings to, **116**, 40.
- Camara** Regional d' Agricultura, farmers' union, **116**, 53.
- Cambaya** or **Cambay**, famous trading centre, **115**, 15.
- Camels**, **120**, 57.
- Cameron**, Verney Lovett, explorations of, **120**, 21.
- Cameroon**, exports to, **119**, 33.
- Campanario**, sailings to, **116**, 40.
- Canals**, Madeira, **116**, 38.
- Cananor**, Chiefs welcome Portuguese, **115**, 15; Portuguese factory, **115**, 15; Portuguese fleet refit at, **115**, 17; relations with Calicut, **115**, 14; taken by Dutch, 1663, **115**, 25.
- Canary** Islands, coaling at, **117**, 17; comparison with Cape Verde, **117**, 38; inhabitants, **115**, 4; Portuguese rights transferred to Spain, 1479, **115**, 5.
- Candles**, import, **116**, 57; manufacture, **116**, 52.
- Caneiro**, map of, 1502, **121**, 27.
- Canhabac** island, **118**, 3.
- Canico**, road, **116**, 37.
- Canna**, Serra, **121**, 100.
- Canned** goods, **120**, 74.
- Cano**, Pico do, **117**, 3, 3-4.
- Canoes**, construction, **121**, 78.

- Canso, Cape, cable, **116**, 26.
 Cantin, Cape, **116**, 1.
 Canyas import, **121**, 87.
 Cão, Diogo, discoveries and explorations of, **115**, 3 note, 6, 7, 23, 13, 14, 24.
 Caoutchouc, **119**, 23, 24.
 Cape Colony, osier export to, **116**, 51.
 Cape of Good Hope, **121**, 22.; cable, **116**, 41; Dutch colony at, **115**, 27, **121**, 26.
 Cape ports, sea-borne traffic, **121**, 89.
 Cape Town, **121**, 46, 54; cables, **117**, 18, **118**, 18, **119**, 20, **120**, 38; horses and mules from, **120**, 58; sailings to, **120**, 37.
 Cape Verde Islands, *see also* Contents, **117**: **115**, 5, 9; cable, **116**, 26; colonists from, **120**, 20; horses and mules from, **120**, 58; labourers from, **119**, 21, 22; land tenure, **118**, 25; steamer services during war, **118**, 18; traders from, **118**, 27.
 Capellas, **116**, 8; whaleries, **116**, 30.
 Capello, Brito, expedition under, 1884-5, **121**, 31.
 Capello, H., **120**, 11; exploration, 1877-8, **120**, 21.
 Capitão, Point, **119**, 17.
 Carapacha, mineral springs, **116**, 30.
 Caravan routes, **121**, 36.
 Caravela island, **118**, 3.
 Carcavellos cable, **116**, 26.
 Carpentry, etc., school for, **117**, 12.
 Carvalho e Vasconellos, E. J. de, table of financial position of Cape Verde Islands by, **117**, 34.
 Carvallos, Portugal, cable, **119**, 20.
 Cashew nut, **121**, 70, 71.
 Cashew tree, spirit distilled from, **121**, 71.
 Cassangas, tribe, **118**, 6.
 Cassava (manioc), **120**, 47, **121**, 59.
 Cassini (Cacine), custom house, **118**, 31; kola nut growing, **118**, 21; rubber, **118**, 22; schools, **118**, 12; telegraphic connection, **118**, 16.
 Cassini (Cacine) river, **118**, 1, 3, 15.
 Castille, King of, **115**, 5.
 Castor-oil plant, **116**, 45, **117**, 23, **118**, 22, **121**, 70.
 Catharine of Braganza, alliance between England and Portugal strengthened by marriage of, **116**, 21; Bombay transferred to England on marriage of, 1662, **115**, 26.
 Catima rapids, **121**, 100.
 Cattle, **116**, 46, **117**, 24, **118**, 22, 27, **120**, 57, 58, **121**, 71; bartered for rubber and ivory, **120**, 58; export, **116**, 32, 33; trade in, **118**, 27.
 Cazembe country, *see* Lunda.
 Cedros, wireless, **116**, 26.
 Cement, import, **116**, 35, 48, **120**, 76, **121**, 87; trade, **120**, 74.
 Central Africa Railway, **121**, 40, 41, 42.
 Central African plateau, **121**, 6.
 Centro Colonial de Lisboa, **119**, 29, **120**, 76.
 Cereals, cultivation, **116**, 42; import, **116**, 35, 57, 58.
 Ceylon, **119**, 16, 25, **120**, 54; attacks on, 1636, **115**, 25; Portuguese land in, 1505, **115**, 15; rubber, **121**, 69.
 Chaldirân, battle of, 1514, **115**, 18.
 Chambers of Commerce, **116**, 53, **120**, 76, **121**, 81.
 Chão, **116**, 11.
 Chargeurs Réunis, **116**, 40.
 Charles II., King of England, alliance between England and Portugal strengthened by marriage of, **116**, 21; Bombay transferred to England on marriage of, 1662, **115**, 26.
 Chãul port, **115**, 15; defeat of Portuguese fleet at, **115**, 16; fortified, 1521, **115**, 20; taken by Mahrattas, 1740, **115**, 26.
 Chaura, Serra, **121**, 99.
 Cheese, export, **116**, 28, 32; import, **121**, 86, 87.
 Chella, Serra da, *see* Shila.
 Chemical manures, manufacture, **116**, 52.
 Chemicals, import, **116**, 35.
 Cherry plantations, **116**, 43.
 Chikapa river, **120**, 31.
 Chimanimani, **121**, 99.
 Chimezi, *see* Shimezi.
 Chimoio, *see* Shimoyo.
 China, cable, **121**, 55; Malacca as trading centre for, **115**, 18; Portuguese settlements in, **115**, 19.
 Chinchoxo, *see* Shinshaska.

- Chinde, **121**, 7, 14, 82; bank, **121**, 92; harbour, description, **121**, 48-9; land leased to Great Britain, **121**, 100; lease of concession, **121**, 88-9; population and nationalities, **121**, 14, 15, 20; telegraph system, **121**, 55.
- Chinde river, **121**, 9, 38.
- Chindio, railway, **121**, 40, 41, 42.
- Chinese, Lourenço Marques, **121**, 16; Portuguese Guinea, **118**, 25; San Thomé, **119**, 29.
- Chiuta lake, *see* Shiuta.
- Chiwanga, **121**, 95.
- Cholera, **121**, 13.
- Chuara Mount, *see* Shuara.
- Cid, F. de Paula, on fish-curing industry, **117**, 27.
- Cigars and cigarettes, manufacture, **121**, 79.
- Cinchona, cultivation, **117**, 24, **119**, 7, 23; export, **119**, 32.
- City of Mindello founded, 1838, **117**, 9.
- Clan-Ellerman-Harrison Line, **121**, 54.
- Clay, **117**, 28; export, **116**, 28; industry, **118**, 26.
- Climate, Angola, **120**, 7-8; Azores, **116**, 5; Cape Verde Islands, **117**, 4; Madeira, **116**, 12, 60; Mozambique, **121**, 11-3; Portuguese Guinea, **118**, 4-5; Príncipe, **119**, 2-3; San Thomé, **118**, 2.
- Clocks and watches, **120**, 74.
- Cloth import, **121**, 79, 86, 87.
- Coal, **117**, 15, **121**, 76, 77, 94; import, **116**, 34, 35, 57, 58, **117**, 33, **119**, 34, **121**, 87, 88; industry and trade, **117**, 26, 31, **121**, 81.
- Coal, Transvaal traffic, **121**, 40.
- Coal-tax, as source of revenue, **117**, 34.
- Coaling and bunker trade, statistics, **121**, 46.
- Coaling plant, **121**, 47.
- Cobre, Rio do (Copper river) Rio da Lagoa, **121**, 27.
- Cochin, fort founded, **115**, 15; Portuguese at, **115**, 15; relations with Calicut, **115**, 14; taken by Dutch, 1662, **115**, 25.
- Cocoa, cultivation, **118**, 20, **119**, 7, 8, 21, 23-4, 26-7, 27-8, **120**, 11, 47, 47-8; duty on, **119**, 34; export, **119**, 32; industry, labour question, **119**, 3, 21.
- Cocoa estate owners, schools for servical children maintained by, **119**, 11.
- Cocoli, Coli, Coliba, river, **118**, 3.
- Coconut palm, **117**, 21, **119**, 25, **120**, 53, 85, **121**, 64-5, 70.
- Coco-nut plantations, **121**, 50.
- Coffee, cultivation, **116**, 28, **117**, 22, 26, 27, **119**, 7, 23, 24, 27, **120**, 48-9; duty on, **119**, 34; export, **117**, 21-2, 33, **119**, 32, **120**, 47, 49, 78, **121**, 50; import, **121**, 86, 87.
- Coillard, M., and rescue of Serpa Pinto, **120**, 24.
- Coimbra University, Azorians at, **116**, 23.
- Coli, Coliba, *see* Cocoli.
- Colour wine, **116**, 28.
- Colufe river, **118**, 3.
- Columbus, Christopher, lives in Porto Santo and Funchal collecting information, **116**, 21; marries daughter of Governor of Porto Santo, **116**, 21.
- Combidjam river, **118**, 3.
- Commerce, Angola, **120**, 74-8; Azores, **116**, 31; Cape Verde Islands, **117**, 31; Madeira, **116**, 53; Mozambique, **121**, 79-84; Portuguese Guinea, **118**, 26-8; San Thomé and Príncipe, **119**, 29.
- Commercial Treaties, Mozambique, **121**, 88-9.
- Commerciantes de Angola, **120**, 76, 77.
- Commerciantes de Angola residentes na Metropole, **120**, 76, 77.
- Compagnie de Fives-Lille (France), **120**, 72.
- Companhia de Boror, **121**, 50.
- Companhia de Cabinda, cocoa plantations, **120**, 48.
- Companhia do Caminho de Ferro através de Africa, Government take over, **120**, 74.
- Companhia do Dombé Grande, **120**, 56.
- Companhia Geral de Credito Predial Portuguez, **116**, 59.
- Companhia da Ilha do Príncipe, estates of, **119**, 27.
- Companhia de Moçambique, **121**, 1, 4, 5, 19, 34, 35, 36, 48, 53, 57, 58, 68, 75, 81, 85, 87-8, 93, 105.
- Companhia de Mossamedes, **120**, 34, 85.
- Companhia Nacional de Navegação, **116**, 40, **118**, 17, 18, **119**, 18-20, **120**, 37, 75.
- Companhia do Nyassa, **121**, 1, 6, 19, 34, 35, 42, 51, 52-3, 75, 76, 77, 83, 85, 87-8, 93.

- Compañia Trasatlántica de Barcelona, **119**, 19.
- Companhia da Zambezia, **121**, 50.
- Conducia Bay, **121**, 52.
- Congo dialect, **120**, 9.
- Congo district, communications, **120**, 27, 35; continental telegraph, **121**, 55; country ruined, **120**, 16; expedition sent to re-explore, **120**, 18; labour conditions, **120**, 41; malachite, **120**, 68; population, **120**, 11; ports and towns, **120**, 75; trade openings, **120**, 85.
- Congo, King of, accepts lordship of João, King of Portugal, **115**, 8; and Christianity, **115**, 8, **120**, 14; disagreement *re* trade in cowries, **115**, 23, **120**, 15; killed in battle, **120**, 18; relations with, **120**, 13; takes refuge on island, **120**, 15-6.
- Congo, Kingdom of, Chief makes treaty with Paulo Dias, 1574, **115**, 24; Christianised by expedition under Diogo Cão, **115**, 23; decay of Portuguese power, **120**, 14, 15; discovery of, **115**, 7-8; invasion by Jaggas, **115**, 23, **120**, 15-6; mission to, conversions, **115**, 8, **120**, 14; propaganda of Diogo Cão, **120**, 14; war with, 1665, **120**, 18.
- Congo river (Zaire), **115**, 7, **120**, 3, 5, 6, 11, 31, 32, 48, 49, **121**, 31; mouth of, Portugal's claim recognised, **120**, 22.
- Congo State, **121**, 31, 98; import trade, **120**, 75-6; railways, **115**, 29, **120**, 20; Servical recruitment, **119**, 10; tariff, **120**, 79.
- Congo, Upper, German efforts to control, **121**, 83; rice growing, **121**, 61.
- Congo-Zambesi divide, **120**, 2, 4.
- "Conquistador" and Governor of Angola, **120**, 15.
- Convict population, arrangements, **120**, 44; in San Thomé, **119**, 6.
- Copaifera guibourtiana, **120**, 52.
- Copper mines, **120**, 34, 44, **121**, 78.
- Copper ores, **120**, 68-70, **121**, 76, 77;
- Copra, **118**, 22, **121**, 64, 94; export, **121**, 47, 50, 85, 86.
- Coral, Cape Verde Islands, **117**, 29; industry, **117**, 31.
- Corn, export, **116**, 32, 33.
- Cornish miners, **120**, 69.
- Correa, João, of Terceira, orange introduced into Azores by, 1524, **116**, 16.
- Correntes, Cape (Cabo das Correntes), **121**, 23, 27.
- Corubal or Crobál, **118**, 3; cocoa-growing, **118**, 20; road across, **118**, 14.
- Corubal, river, iron ore extracted and worked, **118**, 25.
- Corunã, Spanish fleet sent from, as convoy puts back (1590), **116**, 18.
- Corvo, **116**, 1; colonising of, **116**, 16; description, **116**, 2; English fleet near, 1590, **116**, 18; extinct volcano, **116**, 2; population, **116**, 8; wireless, **116**, 26.
- Cossart, Gordon & Co., **116**, 54.
- Costa, Eduardo da, **120**, 62-3.
- Costa, Soeiro da, factory for trade in gold established by, **115**, 6.
- Cotton, blight and insect pests, **121**, 69; cultivation, **117**, 22, **118**, 20-1, **120**, 47, **121**, 60, 61, 68-9, 79, 94; export, **120**, 78, **121**, 85; import, **116**, 34.
- Cotton goods, export, **117**, 30; import, **118**, 30, **120**, 76, 79, **121**, 86, 87; industry, **116**, 31, **117**, 30, **118**, 26.
- Cotton-seeds, **121**, 70.
- Coutinho, de Sousa, Governor of Angola Colony (Marshal of Portugal), administration of (1764), **120**, 18-9; arrives at eastern ports with orders from the king, **115**, 17; Portuguese fleet under, defeats Turkish fleet, **115**, 12.
- Couto, account by, **121**, 28.
- Cowries, disagreement between Kings of Congo and Angola *re*, **120**, 15.
- Cows, liability to disease, **120**, 58.
- Crananore, taken by Dutch (1662), **115**, 25.
- Creole language, **117**, 6, **118**, 7.
- Creoulo, Monte, **117**, 2.
- Crete, Malmsey vine from, sent to Madeira, **116**, 20.
- Crobál, *see* Corubál.
- Crosby & Co., **121**, 54.
- Cross, Cape, padroe erected, **120**, 14.
- Cruz, Pico da, **116**, 4.
- Cuanhama, mission, **120**, 26.
- Cuba sugar, price, **116**, 44.
- Cultivation, methods of, Azores, **116**, 29; Cape Verde Islands, **117**, 25; Madeira, **116**, 47-8; Portuguese Guinea, **118**, 23; San Thomé, **119**, 26-7.

Cunha, Nano da, Governor, strengthens Portuguese position in India, **115**, 20; Barāwa and Oja sacked by, **115**, 12.
 Cunha, Tristão da, **115**, 14, 16.
 Curador, labour repatriation carried out by, **119**, 22.
 Curios, trade in, **116**, 53.
 Currency, Angola, **120**, 84; Azores, **118**, 36; Cape Verde Islands, **117**, 35; Madeira, **116**, 59; Mozambique, **121**, 91-2; Portuguese Guinea, **118**, 34.
 Currie & Co., **121**, 54.
 Custard-apples, **121**, 71.
 Customs and tariffs, Angola, **120**, 79; Cape Verde Islands, **117**, 33-4; Madeira, **116**, 41, 43, 44, 58; Mozambique, **121**, 87-8; Portuguese Guinea, **118**, 31, 33; San Thomé and Príncipe, **119**, 33-4.
 Cutlery, import, **116**, 57, **121** 87.
 Cyclones, **121**, 51, 65.

D.

Dābhol, **115**, 15.
 Dahomey, **119**, 8; Portugal declares protectorate over sea-coast (1886) withdraws (1887) **119**, 9; treaty with Portugal (1885), **119**, 8.
 Dahomey, King of, Portuguese make concession to, **119**, 8.
 Dairy-farming, **116**, 46.
 Dakar, coaling at, **117**, 17; fish block, **120**, 67; monthly boats, **118**, 18.
 Dala Tando, *see* N'Dala Tando.
 Dāmān, ceded to Portugal, 1534-5, **115**, 20; remains Portuguese possession, **115**, 26.
 Dande, bitumen (petroleum), **120**, 70.
 Dande river, **120**, 32; *re* utilisation of falls, **120**, 73.
 Dar-es-Salaam, bank, **121**, 92.
 Dates, cultivation, **116**, 42, **117**, 22; export prohibited, **116**, 43.
 Deccan, Bahmani kingdom of, Mussulman States formed from, **115**, 15.
 Decorticating machinery, **121**, 67.
 Delagoa Bay, **121**, 1, 6, 7, 10, 96; assigned to Portugal, **121**, 29; cable, **121**, 55; channels, **121**, 45; coal traffic, **121**, 46-7; description, **121**, 45-7; Dutch fort in, **121**, 28; English occupy southern

Delagoa Bay—*cont.*
 shore, 1824, **121**, 29; railway, **121**, 40-41; shipping trade, **121**, 53-4, 103, 104, 106; wireless, **121**, 55.
 Delgado, Cape, **115**, 28, **121**, 4, 54, 81; minerals, **121**, 77.
 Dembos, coffee, **120**, 48; gum arabic, **120**, 51.
 Dentro, Ilha de, whaling and fishing vessels shelter at, **117**, 4.
 Deserta Grande, strait, **116**, 11.
 Desertas, **116**, 9, 11.
 Deutsche Ost-Afrika Line, **120**, 37.
 Diamonds, **120**, 44, **121**, 77.
 Dias, Bartolomeu, rounds the Cape, 1486, **115**, 9.
 Dias, Dinis, **115** 5; discovers Cape Verde, 1445, **117**, 8, **118**, 8.
 Dias, Paulo, and Angola, 1559-88, **115**, 23-4, **120**, 15; Portuguese expelled from Congo join, 1574, **120**, 14; treaty with Congo chief, 1574, **115**, 24; death of, 1588, **115**, 24, **120**, 15.
 Dilolo, lake, **120**, 2.
 Diriko, **120**, 32.
 Diu, **115**, 15; defeat of Egyptian and Gujarāt fleet at, **115**, 16; fort built on, **115**, 20; Portuguese and, **115**, 10, 14, 26; Turkish siege fails, 1538, **115**, 9, 20.
 Dombe Grande, gypsum, **120**, 70; sulphur, **120**, 71.
 Dondo, steamers, **120**, 31.
 Donkeys, **116**, 46-7, **117**, 24, **120**, 58, **121**, 71-2.
 Dracaena, introduced into Cape Verde Islands, **117**, 25.
 Drake, Sir Francis, sacks Faro, **115**, 24; sacks Ribeira Grande, **117**, 9.
 Drawn-linen work, **116**, 31.
 Dressmakers, opening for, Madeira, **116**, 59.
 Dromedaries, **117**, 24.
 Drums and musical instruments, **121**, 78.
 Dry goods, import, **116**, 57.
 Duguay-Trouin, M., Rio de Janeiro taken by, **117**, 9.
 Durban, **121**, 46; cable, **121**, 55; sea-borne traffic, **121**, 89.
 Dutch, colonies at the Cape and Mauritius, **115**, 27; concentrate on India and Brazil, **115**, 27-8; development of sea-power, **115**, 24; expelled from Brazil, 1645, **115**, 27; factory at Java, **115**, 24; monopoly in Eastern trade aimed

Dutch—cont.

- at by, **115**, 25; in Mozambique, **121**, 26; Portuguese losses in struggle with, **118**, 8; San Thomé held by, 1641–4, **119**, 7, plundered by, 1600, **119**, 20; Portuguese settlements in Africa taken by, **115**, 26; struggle for Angola, **120**, 17–8; Table Bay settlement, **115**, 27; trading ports in East Indies, **121**, 25; treaty with tributary King of Kandy, **115**, 25; truce with Portugal made and broken, 1643, **120**, 17; whaling, **120**, 66.
- Dutch Wars**, and settlements taken by, **115**, 23–5.
- Dye-stuffs**, **117**, 29.
- Dye-woods**, **118**, 22.
- Dysentery**, **117**, 5, **119**, 3, 23, **121**, 13.

E.

- Earthenware**, **121**, 78; import, **120**, 76, **121**, 87.
- East Africa**, communication with, **120**, 19; present distribution, **115**, 28; ports, Portuguese hold on, reasons for, **115**, 9–10, raid on, 1584–9, **115**, 22; Portuguese and German territories, boundaries, **121**, 32; Portuguese possessions, **115**, 28; Portuguese as paramount power, **115**, 14.
- East Coast fever**, **121**, 71.
- Eastern and Associated Telegraph Co.**, **116**, 26.
- Eastern Seas**, English and Dutch gain control of trade in, **115**, 28.
- Eastern Telegraph Co.**, **121**, 55.
- Eastern trade**, control, **121**, 22; Dutch aim at monopoly in, **115**, 25; mastery of, passes to England and Holland, **115**, 9.
- East Indies**, trading ports, **121**, 25.
- Ebony**, **118**, 23.
- Economic penetration**, methods of, **116**, 54–5, **121**, 82–4.
- Ecovongo**, *see* Bihé.
- Education**, Angola, **120**, 27–8; Cape Verde Islands, **117**, 12; Mozambique, **121**, 34; Portuguese Guinea, **118**, 12; San Thomé and Príncipe, **119**, 11.
- Eggs**, export, **116**, 55.
- Egito**, oil palms, **120**, 52.
- Egypt**, conquest by Turkish Sultan, 1517, **115**, 18.
- Egyptian cotton**, **121**, 68.
- Egyptian fleet**, wars with Portuguese, 1507, 1509, **115**, 16.
- Elder**, Dempster & Co., **119**, 19.
- Electric power**, Angola, **120**, 73.
- Electric and telegraphic materials**, import, **121**, 87.
- Elephantiasis**, **117**, 5, **118**, 5, **120**, 9.
- El-Katif**, Turks obtain footing, but are driven out, **115**, 21.
- Elmina**, Dutch corruption of A Mina (São Jorge da Mina), **115**, 2, 6 note.
- El Pardo**, Treaty of, **119**, 6.
- Embroidery**, trade in, **116**, 51, **53**, 55, 56.
- Emden**, cable, **116**, 26.
- Emigration**, Angola, **120**, 20, 42–4; Azores, **116**, 9, 19, 26–7; Cape Verde Islands, **117**, 19–21; Madeira, **116**, 14, 41; Mozambique, **121**, 58.
- Emphyteusis**, tenure by, **118**, 25.
- Empresa Funchalense de Transportes Marítimos a Vapore**, steam launches, **116**, 39.
- Empresa Industrial Madeirense** (Gonçalves & Co.), **116**, 52.
- Empresa Insulana**, **116**, 25, 40.
- Empresa Nacional de Navegação**, *see also* Companhia Nacional de Navegação; **116**, 40, **117**, 18, **121**, 54.
- Encoge**, colony, **120**, 19.
- Encoje**, *see* Enkoye.
- England**, *see* Great Britain.
- English**, encroach on trade monopoly, 1649, **121**, 26.
- English river**, **121**, 10, 27, 37, 45.
- Enkoye** (Encoje), coffee centre **120**, 48.
- Enteric**, **119**, 3.
- Epizootic diseases**, **120**, 58.
- Escobar**, Pedro d', discoveries of, **119**, 6.
- Espirito Sancto**, Rio do, *see* English river.
- Estancia**, Pico d', **117**, 3.
- Ethiopia**, Portuguese scheme to conquer, **120**, 18.
- Eucalyptus**, **117**, 25.
- Europe**, cable, **121**, 55; Cabo-Verdeans, **117**, 20.
- European industries**, **118**, 35.
- European planters**, value of, **121**, 60.
- European trade**, toll, Mohammedan Powers, **121**, 22.
- Europeans**, San Thomé and Príncipe, **119**, 3, 4.

Exports and imports, Angola, **120**, 76, 78-9, 88, 89; Azores, **116**, 32, 33-5; Cape Verde Islands, **117**, 32, 33-4, 39-41; duties, **118**, 31, **119**, 19, **121**, 89; licences, **118**, 28, 31; Madeira, **116**, 55-7; Mozambique, **121**, 64, 84, 85-8, 103; Portuguese Guinea, **118**, 28-9, 30; San Thomé and Príncipe, **119**, 18, 32-3.

F.

Fabre, Cyprien & Cie., **116**, 26.

Facho, Pico da, **116**, 10.

Fajasinha, **116**, 2.

Fanal, crater at, **116**, 9.

Farim, **118**, 7, 15, 17-28; customs house, **118**, 31; ground-nut growing, **118**, 21; Kola nuts, **118**, 21; road, **118**, 14; schools, **118**, 12; telegraphic connection, **118**, 16.

Farim, circumscription of, asses in, **118**, 22.

Faro, Sir Francis Drake sacks, **115**, 24.

Fayal, attached to Duchy of Burgundy, **116**, 7; cable, **117**, 18; description, **116**, 2-3; industries, **116**, 31; population, **116**, 8; roads, **116**, 24; trade, **116**, 32, 33, 34; whaleries, **116**, 30.

Feijão, *see* Kaffir beans.

Felupes, tribe, **118**, 5, 27.

Fernandes, Alvaro, journey and discoveries of, 1446, **115**, 5-6.

Fernando, Dom, Diogo Afonso sent out by, **117**, 9; islands given to, by King Afonso, **117**, 8; rights of, on Portuguese Guinea, **118**, 9.

Fernando Po (Formosa), ceded to Spain, 1778, **119**, 6; communication between Santo Antonio do Príncipe and, **119**, 19; discovery of, 1478, **115**, 6, **119**, 6; fall of Portuguese settlements, 1642, **115**, 25.

Fernão Veloso Bay, **121**, 7, 52.

Fertilizers, import, **116**, 34, 35.

Fetishists, Portuguese Guinea, **118**, 11.

Fever, **117**, 5.

Fibre, for cordage, &c., **117**, 22, **120**, 49-50, **121**, 66; cost, **121**, 68; export, **121**, 50, 94; sacks woven of, **120**, 49-50.

Fibre-yielding plants, **118**, 24, **120**, 49-50.

Ficus tree, **120**, 53, 54-5.

Fife, **121**, 56.

Figs, **116**, 28, 42, 43, **117**, 22.

Figueira, Luiz, expedition under, **115**, 21.

Finance, Angola, **120**, 81-4, 90-1; Azores, **116**, 36; Cape Verde Islands, **117**, 34; Madeira, **116**, 59; Mozambique, **121**, 90-3; Portuguese Guinea, **118**, 32-4; San Thomé and Príncipe, **119**, 35.

Fire-arms, duty, **118**, 31.

Fish, tinned, export, **116**, 56.

Fish-curing industry, **117**, 34, 35, 38, **120**, 66, 72, **121**, 86.

Fisheries, Angola, **120**, 66-8; Azores, **116**, 29-30; Cape Verde Islands, **117**, 27-8; Madeira, **116**, 49; Mozambique, **121**, 75; Portuguese Guinea, **118**, 25; San Thomé and Príncipe, **119**, 28-9.

Fish-traps and nets, construction, **121**, 78.

Flax, native growers, **121**, 61; New Zealand, **116**, 28.

Flemish Islands, Azores called, **116**, 16.

Flemish settlers, Angola, **120**, 16; Azores, **116**, 16.

Florence, **121**, 98.

Flores, colonising of, **116**, 16; description, **116**, 2; English and Spanish fleets meet off, **116**, 18; population, **116**, 8.

Flour, export, **116**, 32; import, **116**, 34, 35, **117**, 33.

Flour mills, **116**, 52.

Fogo (São Philippe), **117**, 1; active volcano, **117**, 1; circle, **117**, 11; cultivation, **117**, 22; colonised, 1503, **117**, 9; description, **117**, 3-4; emigrants, **117**, 21; given to Dom Fernando 1462, **117**, 8; indigo, **117**, 22; industries, **117**, 30; inhabitants claim Spanish descent, **117**, 6; population, **117**, 7; postal arrangements, **117**, 14; roads, **117**, 13; tobacco, **117**, 24.

Fontainhas, mountain, **117**, 4.

Fontesvilla, **121**, 41.

Food-stuffs, *see* Provisions.

Fora, Ilha de, guano from, **117**, 4.

Foreign interests, Azores, **116**, 31; Cape Verde Islands, **117**, 31, 37; Madeira, **116**, 53, 59; Mozambique, **121**, 92-3; San Thomé and Príncipe, **119**, 30-1.

Foreign missions, **121**, 33-4;
 Foreign population, Madeira, **116**, 14.
 Foreign vessels, duty, **120**, 81.
 Forest fires, Madeira, **116**, 20.
 Forest lands, decree regulating control, 1903, **118**, 24.
 Forestry, Angola, **120**, 60-2; Azores, **116**, 29; Cape Verde Islands, **117**, 25; Madeira, **116**, 48; Mozambique, **121**, 72-3; Portuguese Guinea, **118**, 23-4.
 Formigas, **116**, 1, 5.
 Formosa, *see* Fernando Po.
 Fort Jameson, telegraph system, **121**, 56.
 Fouta-Djallon, *see* Futa Jalon.
 France, convention with Portugal, 1886, **118**, 1, 10, 36-7, **120**, 22, 23, 25, **121**, 31; sacking of Ribeira Grande, Praia and Santo Antão by, 1712, **117**, 9; trade with, **116**, 35, 56, 58, **117**, 32, **120**, 50, **121**, 86; trading stations, **121**, 27; treaty with Almamys of Fouta-Djallon, 1881, **118**, 37.
 Franco-Portuguese Commission, survey, **118**, 2.
 Freetown (Sierra Leone), cable, **117**, 18.
 French, Anna de Chaves taken by, and burnt, 1709, **119**, 7; Cabinda surrendered to, **120**, 19; raid Principe, 1706, 1799, **119**, 8; salt manufacture in hands of, **117**, 31; San Thomé plundered by, 1567, **119**, 6.
 French colonisation, futile attempt in Brazil, **115**, 23.
 French commission agency, establishment in Madeira recommended, **116**, 60.
 French Equatorial Africa, **120**, 1, 48, 85.
 French Guinea, **118**, 1.
 French Possessions, exports to, **117**, 32.
 French raiders, **119**, 8, **121**, 27.
 Friedländer, Immanuel, mineralogy of Cape Verde Islands, **117**, 29.
 Frobisher, Martin, English fleet under, goes to Azores, **116**, 18.
 Frozen meat, **118**, 35.
 Fruit, cultivation, **116**, 42, 43; export, **116**, 40, 55, 56; trade in, **116**, 53, **117**, 32.
 Fruits, preserved, import, **121**, 88.
 Fuba, export, **120**, 47.

Fula, tribes, **118**, 5, 6, 25.
 Fula-Forros, tribe, **118**, 6, 26, 26-7.
 Fula-Pretos, tribe, **118**, 6.
 Funchal, attacked, plundered and partly destroyed by French raiders, 1566, **116**, 21; bishopric, **116**, 20-1, 23; capital of Madeira, **116**, 23; Chamber of Commerce, **116**, 53; city, 1508, **116**, 20; climate, **116**, 12; coaling station and port, **116**, 14; coastwise traffic, **116**, 53; Columbus lives in, **116**, 21; English spoken in, **116**, 13; exporting houses, nationality, **116**, 54; harbour, **116**, 38-9; health resort, **116**, 13; industries, **116**, 52; naming of, **116**, 20; peasants bring produce to, **116**, 53; population, **116**, 14; port, inadequate, **116**, 60; sailings from, **116**, 40; streets, **116**, 37; third largest city of Portugal, **116**, 14.
 Funchal Bay, **116**, 10.
 Furna do Enxofre, cave, **116**, 3.
 Furnas, **116**, 8; lignite near, **116**, 30; mineral springs, **116**, 30; thermal station, **116**, 4.
 Furniture, import, **121**, 87; manufacture, **116**, 51-2.
 Futa Jalon (Fouta Djallon), **118**, 1, 14, 16; treaties *re*, **118**, 37.
 Futa Massabe, *see* Shamba Point.

G.

Gabun, slaves from, **119**, 3.
 Galena, **121**, 77.
 Gama, Antonio Saldanha da, attempts to open up communication with East Africa, **120**, 19; improvements in Angola Colony by, 1807-10, **115**, 27.
 Gama, Paulo da, death at Terceira, **116**, 17.
 Gama, Vasco da, **115**, 9, **121**, 23; expedition to Calicut, **115**, 14; visits Delagoa Bay, **121**, 27; directs payment of tribute by Sultan, **115**, 11; at Mozambique, **115**, 10, **121**, 23, 24; lands at Terceira, **116**, 17.
 Gambia, **118**, 9, 10.
 Game, measures for preserving, **121**, 72.
 Gamitto, **121**, 30.
 Garbanzo (chick pea), cultivation of, **116**, 43.

- Garda, Pico, **116**, 2.
 Gazal, **121**, 4-5, 12, 16; language, **121**, 18; political division, **121**, 1; population and nationalities, **121**, 19.
 Geba, circumscription of, **118**, 7; asses in, **118**, 22; cattle, **118**, 22; ground-nut growing, **118**, 21; Kola nuts, **118**, 21; roads, **118**, 14.
 Geba river or Rio Xaianga, **118**, 3, 15; channel connecting, **118**, 15; factory, **118**, 9.
 Geneva Postal Convention, **117**, 35 note.
 Genoa, sailings to Madeira, **116**, 40.
 Genoese maps (14th century), Azores shown in, **116**, 15.
 German East Africa, *see* Tanganyika.
 German East Africa railway, **121**, 54, 83.
 German possessions, **121**, 100; Portuguese subjects, **121**, 101.
 German South-West Africa, **120**, 2; fossil gum, **120**, 52; labour recruiting, **120**, 43-4.
 ex-German vessels, purchase of, **118**, 18.
 Germans, economic penetration, **120**, 33, **121**, 82-4; in Mozambique, **121**, 14; sugar mill owned by, **120**, 72.
 Germany, agreement with British South African Company, 1899, **120**, 34; and Angola, **120**, 37, 43-4, 77-8, roads constructed during invasion, **120**, 29; claims *re* Mozambique, **121**, 84; colonists from, **120**, 20; declaration of war on Portugal, effect on trade of colonies, **119**, 20; decorticators, **121**, 67; Emperor of, **121**, 100; interned fleet, use of, **119**, 20; Kilwa ceded to, 1890, **115**, 11; Portugal's treaty for most-favoured-nation treatment, **119**, 33; ships, Portuguese Guinea, **118**, 18; State railways, cheap freights, **121**, 83; syndicates, **116**, 22, **119**, 30; trade with, **116**, 35, 51, 54, 56, 58; **117**, 32-3, **118**, 29, 30, 32-3, **119**, 14, 30-1, 32-3, **120**, 74, **121**, 42, 50, 75, 79-80, 81, 86, 93; treaty with Portugal, 1886, **120**, 22, 23, **121**, 31, 32, 100-1; trespasses in Portuguese territory, **120**, 43-4.
 Gina Point, **116**, 3.
 Ginga Bandi, Queen of Angola, defeat of, 1645, **120**, 17; war against Portuguese, 1627, **120**, 17.
 Ginger, Portuguese plant, **119**, 8.
 Girão, Cape, **116**, 10; basalt, **116**, 50.
 Giraul, river, sulphate of magnesia on cliffs of, **120**, 71.
 Glasgow, shipping services, **121**, 54.
 Goa, Mozambique freed from, **121**, 29; oranges brought to Azores from, 1635, **116**, 16; as Portuguese centre, **115**, 14; Portuguese seize, lose and regain, **115**, 10, 17-18; remains Portuguese possession, **115**, 26; Viceroy of, **121**, 24, Mombasa under, **115**, 12.
 Goanese clerks, **121**, 16.
 Goats, **116**, 47, **117**, 24, **118**, 23, **120**, 57, **121**, 72.
 Goba railway, **121**, 40.
 Godinho, M., transcontinental scheme of, **120**, 18.
 Goitre, **120**, 9.
 Gold, **115**, 6, **117**, 28, **120**, 14, 68, 70, **121**, 25, 76-7, 77-8, 84, 94; export, **121**, 85, 86; trade, **115**, 9, 10, **121**, 23.
 Gold Coast, cocoa cultivation, **119**, 7-8; Dutch establish forts on, **115**, 26; Dutch retain, **120**, 18; native labour, Government stimulation, **121**, 60-1; occupation of, by Portuguese, **115**, 6.
 Goldsmiths, **121**, 78.
 Golungo Alto, gold, **120**, 48, 70.
 Gomes, Diogo, **117**, 8.
 Gomes, Fernão, exploration contract given to, **115**, 6.
 Gonçalves & Co., *see* Empresa Industrial Madeirense.
 Gonçalves, João (Zarco) explorations and discoveries of, **115**, 5, **116**, 19, 20, **118**, 8-9; surname Da Camara given to, **116**, 20.
 Gordo, Monte, **117**, 2.
 Gorongoe, Mount, **121**, 98.
 Gorongoza country, **121**, 5.
 Gorongoza mountains, **121**, 5.
 Gourds, cultivation, **121**, 59.
 Gouvea, Francisco de, expedition against Jaggas, **120**, 16.
 Graciosa, **116**, 1; colonised from Portugal, **116**, 16; description, **116**, 3; population, **116**, 8; towns in, **116**, 8.
 Grain, export, **116**, 32; import, **121**, 87.
 Gran Curral, Moorish type, **116**, 13.

Grande, Rio, **118**, 1, 3, 15; factory, **118**, 9; Portugal still holds, **115**, 5; Tristão Nuno killed, **118**, 9.
 Grande do Norte, Rio, Capitánias of, occupied by Dutch (1633), **115**, 25.
 Grande, Monte, San Luzia, **117**, 2, 3.
 Granite, **117**, 28, **120**, 69.
 Grapes, cultivation, **117**, 22, **121**, 71.
 Graphite, **121**, 76, 77.
 Great Britain, assists Shah of Persia in taking of Hormuz (1622), **115**, 26; cable to, **116**, 26, **117**, 18; claim to Bolama, (1870), **118**, 9-10; and Eastern trade, **115**, 9; fleet, daring of, **116**, 18; recognition of Portuguese East Africa by, **121**, 95; and Portugal, **116**, 54-5, **120**, 22-3, **121**, 32, 88, 100; alliance and effect, **116**, 21; Convention, 1890, **121**, 88; period of tension, 1885-91, **120**, 23; protocol, 1869, **118**, 9; treaty, additional convention, 1845, **120**, 25 note; treaty, 1891, **120**, 22, 23 25, **121**, 29, 95-7, 10, 1914-16, **119**, 33, **120**, 81; war, **115**, 26, **117**, 9.
 Shipping, **121**, 53; Syndicate, attempt to secure plantations fails, **119**, 30; trade with, **116**, 35, 51, 53-4, 56, 58, **117**, 32, 33, **121**, 28, 79, 86-7; and trading ports in East Indies, **121**, 25.
 Great Piton, **116**, 11.
 Great Salvage, description, **116**, 11.
 Greeks, in Mozambique, **121**, 14.
 Grenville, Sir Richard, fight of "Revenge" under command of, **116**, 18.
 Groceries, **120**, 74.
 Grootfontein copper mines, **120**, 34, 44.
 Ground nuts, cultivation, **118**, 20, 21, 25, **120**, 50-1, 85, **121**, 70; demand for, **120**, 50; export, **118**, 29, **120**, 51, **121**, 49, 50, 85, 86; trade, **121**, 80.
 Grumetes, tribe, **118**, 7, 19, 26.
 Gruyère cheese, **116**, 29.
 Guadelupe, **116**, 8.
 Guanches, affinity with Berbers, **115**, 4.
 Guano, **117**, 28.
 Guavas, **116**, 43, **121**, 71.
 Guinea, descendants of slaves from, Cape Verde Islands, **117**, 6; horses from, **117**, 24; Lord of, King of Portugal assumes title, **115**, 7; market for salt fish, **117**,

Guinea—*cont.*

28; Portuguese lose, **115**, 28; slaves imported from, **115**, 23; steamers to, **117**, 18.
 Guinea fowl, **121**, 72.
 Guinea, Gulf of, country unsuited to European colonisation, **115**, 9; Dutch attack Portuguese settlements in, **115**, 26; Islands discovered, **115**, 6.
 Guinea worm, **118**, 5.
 Gujarāt, Mohammedan kingdom of, **115**, 15; cessions to Portugal, 1534-5, **115**, 20; fleet, war with Portuguese, **115**, 16; ports, d'Almeida visits, **115**, 15-6; quarrel with Portugal and appeal to Suleiman, **115**, 20.
 Gujarāt, Sultan of, alliance with Kānsū Ghorī, ruler of Egypt, **115**, 16.
 Gum arabic, **120**, 51.
 Gums, **118**, 22, **120**, 51-2, 80; export, **118**, 29, **121**, 85; trade, **120**, 52.
 Gunpowder, duty, special rate, **118**, 31; import, **118**, 30.
 Guns and gunpowder, natives eager to obtain, **118**, 27.
 Guzane, Mount, **121**, 99.
 Gypsum, **120**, 68, 70.

H.

Haberdashery trade, **120**, 74.
 Half-castes, Principe, **119**, 4; San Thomé, **119**, 4.
 Hamburg, **118**, 18, **121**, 73; Azores trade affected by closing of, **116**, 32; market for coffee, **120**, 49; sailings, **116**, 40, **119**, 19.
 Hamburg-Bremer-Afrika Line, **116**, 40.
 Hamburg Süd-America Line, **116**, 40.
 Hansa Line, **121**, 54.
 Hardware import, **120**, 76, **121**, 87.
 Hardware and cutlery trade, **120**, 74.
 Haricot beans, cultivation, **116**, 43.
 Harmattan winds, **117**, 4, 5, **118**, 4.
 Hawaii, emigration to, **116**, 27.
 Hawk Islands, *see* Azores.
 Hawkins, Sir John, English fleet under, goes to Azores, **116**, 18.
 Henrique, Dom, Infante of Portugal (Prince Henry the Navigator), **115**, 4, 5; charter from, *re* Flemish settlers in Azores, **116**,

- Henrique, Dom—*cont.*
 16; explorers sent out by, **116**,
 15, 19–20, **118**, 8; Madeira divided
 into captaincies by, **116**, 20;
 Malmsey vine and sugar-cane
 introduced into Madeira by, **116**,
 20; death of, 1460, **115**, 5.
- Hereros, destruction of, **120**, 44.
- Herminios, Montes, **119**, 14.
- Herold, O., & Co., **119**, 30.
- Hesse, Neumann & Co., **117**, 31.
- Hides and skins, export, **116**, 32, 33,
117, 32, **118**, 22, 29, **119**, 32, **121**,
 85, 86.
- Hindu traders (Banyans) privileges
 (1688–1777), **121**, 26.
- Hoes, making of, **121**, 78.
- Hoffmann & Co., **121**, 81.
- Hohenlohe, Prince Frederick Charles
 von, concession to, for sana-
 torium, etc., in Madeira (1903),
116, 54.
- Holland, *see also* Dutch; and Eastern
 trade, **115**, 9; shipping **121**, 53;
 trade with, **116**, 35, 58, **121**, 87;
 war with Portugal, **115**, 25, **117**, 9.
- Honey, **120**, 60.
- Honor, port, **115**, 15.
- Hormigon, **116**, 4.
- Hormuz, kingdom of, Arabian ports
 under attacked by Portuguese
 (1507–8), **115**, 17; Chief submits
 to Portuguese and promises tri-
 bute, **115**, 17; English assist
 Shah of Persia in taking of, 1622,
115, 26; falls into Portuguese
 hands, **115**, 10, 18; fort built by
 Portuguese, 1515, **115**, 18; in-
 structions of King of Portugal *re*,
115, 17; Red Sea entrance held
 by, **115**, 16; trade concentration,
115, 14.
- Hormuz, Straits of, defeat of Murad
 Bey in, **115**, 21; strength of Por-
 tuguese hold on, **115**, 19.
- Horses, **116**, 46, **117**, 24, **118**, 22,
120, 58, **121**, 71–2.
- Horta, district, industries, **116**, 31.
- Horta, port and town, **116**, 25;
 banks in, **116**, 36; cables, **116**, 26;
 capital of Western Azores (1836),
116, 19; climate, **116**, 6; coaling
 station, **116**, 25; emigrants, **116**,
 26; headquarters of whale fish-
 ing, **116**, 8; named after van
 Huerta, **116**, 16; population, **116**,
 8; telegraph station, **116**, 8.
- Hosiery, import, **120**, 76.
- Hottentot language, **120**, 10.
- Hottentots, **121**, 18, 23.
- Houston Line, **121**, 54.
- Huambo country, gold, **120**, 70;
 roads, **120**, 30.
- Huerta, van, Flemings brought to
 Azores by, **116**, 16.
- Hugli, seized by Shah Jahān (1632),
115, 26.
- Huilla, clerical seminary, **120**, 27;
 mission, **120**, 26.
- Huilla district, Boers, **120**, 10; head-
 quarters, **120**, 27; labour, **120**,
 42; population, **120**, 11; towns
 and communications, **120**, 35;
 trade openings, **120**, 85.
- Huilla plateau, **120**, 5, 8, 57.
- Hull, contractors, **120**, 72.
- Humāyan, Moghul invader, pressure
 on Gujarāt by, effect, **115**, 20.
- Humbe, **120**, 70, **121**, 100; railway,
120, 34.
- Humpata, Boer colonies at, **120**, 9,
 20.
- Hut tax, **118**, 33, **120**, 83, **121**, 56,
 60, 80.

I.

- Iaccas, *see* Jaggas.
- Ibo, temperature, **121**, 11; frading
 station, **121**, 51–2.
- Ice, import, **117**, 34, **121**, 88.
- Iceland, salt cod from, **119**, 28–9.
- Ikolo, **120**, 42.
- Ilheos Point, mineral springs, **116**,
 28.
- Ilhéu (Loo Rock), fortified, **116**, 39.
- Immigration, convict population,
120, 44.
- Imperial Institute, survey, **121**, 76.
- Imperial, channel connecting, **118**,
 15.
- Imports, *see* Exports and imports.
- India, **120**, 54; cable, **121**, 55;
 discovery of Cape route to, **115**,
 9, **120**, 14; Dutch concentrate
 effort on, **115**, 27–8; rupees, **121**,
 91; shipping services, **121**, 54;
 trade with, **121**, 54.
- Indian-African services, **121**, 54.
- Indian firms, German monopoly
 prevented by, **121**, 82.
- Indian merchants, **121**, 92.
- Indian Mussulmans, **121**, 15.
- Indian Ocean, cyclones, **121**, 12–3;
 Portugal's schemes, **121**, 22;
 Portuguese lose supremacy, **115**,
 27–8, **121**, 26; Portuguese main-
 tenance in, necessary conditions,
115, 15.

- Indian traders and shopkeepers, **121**, 79-80, 81, 82.
- Indians, failure of laws of equality for, **115**, 28.
- Indigo, **116**, 28, **117**, 22, 29, 38; growing, **117**, 22.
- Inhambane district, **121**, 1 4-5, 7, 34; American missions, **121**, 33; ground nuts, **121**, 70; language, **121**, 18; population and nationalities, **121**, 16, 19; road-making, **121**, 37; settlers, **121**, 14; tobacco, **121**, 69.
- Inhambane port and town, **121**, 7, 9, 47; abandoned, **121**, 29; banks, **121**, 92; French raid, **121**, 27; healthiest station on coast, **121**, 14; population and nationalities, **121**, 19; railway project, **121**, 40, 41; sugar factory, **121**, 62; wages, **121**, 58; whaling companies, **121**, 76; wireless, **121**, 55.
- Inhamucarara, *see* Inyamkarara.
- Inhangela lake, **121**, 77.
- Inkomati river, **121**, 2, 38.
- Inkomati valley, irrigation, **121**, 72; maize plots, **121**, 64.
- Inyak island, **121**, 46, 77.
- Inyamakura, railway, **121**, 42; sugar factory, **121**, 62.
- Inyamendoi river, **121**, 36
- Inyamkarara (Inhamucarara) river, **121**, 98, 99.
- Inyanguvo, **121**, 63.
- Inyarrime river, **121**, 41; local traffic, **121**, 39.
- Ireland, cable with Azores, **116**, 26.
- Iron, **117**, 28, **120**, 68, 70.
- Iron and ironwork, import, **116**, 34, 35.
- Iron ore, **116**, 50; magnetic, **121**, 77.
- Irrigation, Mozambique, **121**, 72; Portuguese Guinea, **118**, 23.
- Isabella grape, **116**, 28.
- Islam, propaganda, **118**, 11.
- "Island-hills," **121**, 4.
- Ismail, Shah of Persia, **115**, 16.
- Italian Consul - General, sugar report, **120**, 56.
- Italian Protectorate, **115**, 28.
- Italian Somaliland, fortified posts, **121**, 22.
- Italians, in Mozambique, **121**, 14.
- Italy, trade with, **116**, 56, 58, **120**, 74.
- Italy, King of, arbitration award of, 1905, **120**, 2, 23, **121**, 97-8.
- Itamarca, Capitanias of, occupied by Dutch, 1633, **115**, 25.
- Ivens, Roberto, account of, **120**, 11; expedition and explorations, **120**, 21, **121**, 31.
- Ivory, **120**, 58-60 80; export, **120**, 78, **121**, 85.

J.

- Jafnapatam Fort, fall of, 1658, **115**, 25.
- Jaggas (Iaccas), invasions of Congo by, **120**, 14, 15-6, 23.
- Jahān, Shah, Moghul Emperor, seizes Portuguese trading centre in Bengal 1632, **115**, 26.
- Janissaries, Suleiman sends, to help Gujarāt, **115**, 20
- Japan, Dutch take place of Portuguese, **115**, 25; ships, **121**, 53.
- Jata island, **118**, 3.
- Jau, mission, **120**, 26.
- Java, Dutch factory, 1597, **115**, 24; rubber, **121**, 69.
- Jeannest, Charles, **120**, 59.
- Jedda, failure of expedition against, **115**, 18.
- Jesuits, expulsion, **115**, 28, **121**, 29; missions, Brazil, **115**, 23.
- Jewelry trade, **120**, 74.
- Jewish boys, settlers in San Thomé, **119**, 6.
- Jewish strain, Cape Verde Islands, **117**, 6.
- Jews, descendants of, **119**, 3; as settlers, **120**, 62.
- Jikungu or Mkweme (Telfairia pedata), **121**, 70-1.
- João I, King of Portugal, **115**, 4.
- João II, King of Portugal, **120**, 13; Cape Verde Islands given to Duke of Beja by, 1489, **117**, 9; King of Congo accepts lordship of, **115**, 8; title of Lord of Guinea assumed by, **115**, 6-7.
- João IV, King of Portugal, **116**, 21.
- João, Dom, **120**, 14.
- Johannesburg, **121**, 40, 57.
- Johnston, Sir H. H., **115**, 7, **118**, 13.
- Juda Cantancia, custom house, **118**, 31.
- Junot, Marshal, enters Lisbon, **116**, 22.
- Junta Agricola de Madeira, **116**, 53.
- Junta Autonomas das Obras do Porto, **116**, 53.
- Junta da Defeza dos Direitos d'Africa, **120**, 76, 77.

Jute carpets, rugs, and bags, import, 120, 76.

K.

- Kabangana, bitumen (petroleum), 120, 70.
 Kabroabasa rapids, 121, 9, 38, 43.
 Kade district, cession to France, 118, 2; railway suggested, 118, 16.
 Kaffir beans (feijão), trade, 121, 80, 85.
 Kaffir corn, *see* Mapira.
 "Kaffir truck," 121, 79, 82.
 Kakengi wireless station, proposal, 121, 55.
 Kakonda plateau, 120, 17; taken by native chief but recovered, 1684, 120, 19.
 Kakonda town, Portuguese rule extended to, 115, 27; roads project, 120, 30.
 Kalhât, attacked by Portuguese, 1507-8, 115, 17.
 Kamarân island, fever among Portuguese crews on, 115, 18.
 Kambambe, 120, 31; fruits, 120, 51.
 Kambove, railway, 120, 33.
 Kandy, tributary King of, treaty with Dutch, 115, 25.
 Kânsû Ghorî, Ruler of Egypt, alliances with Sultan of Gujarât, 115, 16.
 Kasai river, 120, 2, 6, 31.
 Kasamanse district, 118, 1.
 Kasamanse river, 118, 1, 14-5; French occupy territory on, 118, 10.
 Kassekel, sugar mill, 120, 72.
 Kassinga, gold, 120, 70.
 Katanga, labour, 120, 11; mining district, 120, 33; railway, 115, 29.
 Kathiâwâr, peninsula, 115, 15.
 Katima Rapids, 120, 2, 21, 23, 121, 96, 97.
 Katumba (disease), 120, 9.
 Katumbella port and town, 120, 56; incorporated in Lobita, 120, 29-30; road, 120, 29; sugar mill (German), 120, 72; trade, 120, 75.
 Katumbella river, power for electricity from, 120, 73; water supply from, 120, 36.
 Katumbella valley, 120, 9; salt-pans, 120, 71.

- Katumbella Electric Light and Power Co., 120, 73.
 Kazengo, 120, 48.
 Kenya, 115, 28; fortified posts, 121, 22.
 Kerimba islands, 121, 7.
 Keve river, *see* Kuvo.
 Kibokolo, rainfall, 120, 8.
 Kiliman, *see* Quelimane.
 Killengi tribe, 120, 42.
 Kilombo river, 120, 21.
 Kilwa (Quilwa) (Kilwa Kisiwani) 115, 28, 121, 23; ceded to Germany, 1890, 115, 11; fort, 115, 11, 121, 23, 24; French trading station, 121, 27; in hands of tribe from Zambesi, 1587, 115, 11; held by Portuguese, 1728, 115, 11; payment of tribute by Sultan of, 115, 11, 121, 24; Portuguese influence, 121, 24; subject to Sultan of Zanzibar, 1850, 115, 11; Sultan admits suzerainty of King of Portugal, 115, 11; trade ruined by Portuguese, 121, 24.
 Kilwa Kwinji, 115, 28.
 Kingunda, drink, 120, 60.
 Kinsembo (Quissembo), ivory trade, 120, 58-9; salt, 120, 71; traders, 120, 80.
 Kipingi river, 121, 3.
 Ki-senga dialect, 121, 18.
 Kishm island, Piri Bey plunders, 115, 21.
 Kitatua, bitumen (petroleum), 120, 70.
 Kivindi, stream, 121, 3.
 Knives, manufacture, 121, 78.
 Kola nuts, cultivation, 118, 21; import, 118, 21, 30.
 Köller Frères, 116, 54.
 Komatipoort, railway, 121, 40.
 Komponi river, 118, 1.
 Koninklijke West-Indische Maildienst Line, 116, 40.
 Kopororo river, 120, 69.
 Kubango, road project, 120, 30.
 Kubango (Okawango), river, 120, 2, 6, 7, 21, 32, 43-4, 121, 100.
 Kumbana, potteries, 121, 79.
 Kunene river, 115, 27, 120, 2, 6, 7, 32, 43-4, 121, 100.
 Kushi, river, 120, 32.
 Kushibi, river, 120, 21.
 Kuvo (Keve) river, 120, 32; malachite, 120, 68.
 Kwando river, 120, 2, 6, 7, 21, 24, 32, 121, 97.
 Kwango river, 120, 3, 4, 6, 31, 33.
 Kwanza, road project, 120, 30.

Kwanza river, **120**, 3, 6, 8, 31, 32, 42, 48, 49; bee-keeping on, **120**, 60; Portuguese governor takes refuge, **120**, 17; re-utilisation of falls, **120**, 73.

Kwima, road project, **120**, 30.

Kwio, copper ore, **120**, 69; gypsum, **120**, 70.

Kwito river, **120**, 6, 7, 32.

L.

Labour, Angola, **120**, 38-46; Azores, **116**, 26; Madeira, **116**, 41; Cape Verde Islands, **117**, 19-21; Mozambique, **121**, 56-9; Portuguese Guinea, **118**, 19-20; recruiting and repatriation, **119**, 21, 22, **120**, 45, **121**, 56-7, 57; San Thomé and Príncipe, **119**, 21-3, 37; servical system, objections to, **119**, 10.

Lace, industry, **117**, 30; trade, **116**, 53, 55.

Lacerda, Dr. F. J. M., Governor of Zambezi province, journey of, **121**, 30.

Lagens, lagoon, **116**, 3.

Lagoa, pottery, **116**, 31.

Lagoa, Rio da, *see* Cobre, Rio do.

Lagoa Grande, lake, **116**, 4.

Lagoa Pequena, **116**, 4.

Lagos, cable, **119**, 20.

Lagos Portimão, **117**, 16.

Lamaceiros pass, **116**, 9.

Lamu island, **115**, 28; Persian influence in, **115**, 12; Portuguese fort in, **115**, 12.

Land-credit, Cape Verde Islands, **117**, 36.

Land tenure, Angola, **120**, 62-6; Azores, **116**, 29; Cape Verde Islands, **117**, 25-6; Madeira, **116**, 48-9; Mozambique, **121**, 73-5; Portuguese Guinea, **118**, 24-5; San Thomé and Príncipe, **119**, 27-8.

Landana port and town, **120**, 5; commercial centre, **120**, 76; complaints *re* vessels not calling for produce, **120**, 75; mission, **120**, 26; population **120** 11.

Landin (tribes of Zulu origin), **121**, 17.

Languages, Angola, **120**, 9; Azores, **116**, 7; Cape Verde Islands, **117**, 6; Madeira, **116**, 13; Mozambique, **121**, 18; San Thomé and Príncipe, **119**, 3.

Lanzarote, fish block, **120**, 67.

Lard, import, **121**, 86, 87.

Laurel, oil extracted from, **116**, 48.

Lead ore, **120**, 69.

Leather, import, **116**, 34.

Leather work, **118**, 26.

Lebombo hills, **121**, 2, 5; coal, **121**, 77.

Leeward (Sotavento) islands, **117**, 1.

Leiro, V. P., sugar producing enterprise, **120**, 72, 73.

Leitão, *see* Baixo de João Valente.

Lemons, cultivation, **116**, 28, 43, **117**, 22, **121**, 71.

Lengue Gorge, **120**, 4.

Lentils, cultivation, **116**, 43.

Leprosy, **116**, 13, **117**, 5, **118**, 5, **121**, 9.

Levados, water distribution by, **116**, 47-8.

Lewis, Rev. I., inscription on rock in Congo described by, **115**, 7.

Libollo, *see* Santo Antonio de Celulo.

Lifune river, **120**, 32.

Lighters, import, **117**, 33.

Lignite, **116**, 28.

Ligonya river, **121**, 10, 38.

Likungo river, **121**, 10, 38.

Lima, Paulo de, **121**, 28.

Lime, **117**, 29; import, **120**, 76.

Lime kilns, **116**, 50.

Limestone, **116**, 50.

"Limpopo," gunboat, **119**, 17.

Limpopo river, **121**, 2, 8, 10, 38.

Limpopo valley, irrigation, **121**, 72.

Linchoten, Van, **116**, 16, 17, 17-8.

Linen goods, manufacture, **116**, 31.

Linschoten, M., **115**, 12.

Lipuchi, **121**, 42.

Liqueurs, duty, **120**, 81.

Liquors, import, **117**, 33, **119**, 33.

Lisbon, **120**, 85; **121**, 54; cable with, **116**, 41, **118**, 18; Church in Angola under jurisdiction of, **120**, 26; colonial produce, **119**, 19, deputation from Angola to, *re* cowrie trade, **115**, 23; Dutch excluded from, 1594, **115**, 24; ecclesiastical province of, **119**, 10; High Court (Tribunal de Relação), jurisdiction by, **117**, 11-2; ministry, Governor of Portuguese Guinea appointed by, **118**, 11; organisations for promoting trade and commerce, **120**, 76; press, annulling of legislation, **121**, 91 note; steamers between Bolama, Bissau and, **118**, 18.

Little Mussapa (Mussapa Pequena) valley, 121, 99.

Litule, minerals, 121, 77.

Live stock, Azores, 116, 28; Cape Verde Islands, 117, 24; import, 119, 34, 121, 87; Madeira, 116, 46; markets for, 120, 58; Portuguese Guinea, 118, 22; trade in, 117, 32.

Liverpool, shipping services, 116, 40, 119, 19, 121, 54.

Livingstone, Dr., explorations of, 121, 30, 31; Zumbo visited by, 1856, 121, 30.

Loanda, district, 120, 4, 27; Ceará rubber tree, yield, 120, 54; labour conditions, 120, 41-2; towns and communications, 120, 35.

Loanda port and town, 120, 15, 19, 36, 37; attack on, fails, 1602, 120, 16; bishop of, under Lisbon, 120, 26; British Consul-General, 120, 77; cable, 119, 20, 120, 35, 38; cargo boats to, 120, 38; Chamber of Commerce, 120, 76; coasting services, 120, 37; conquest of, 119, 6; District Courts, 119, 10; fish, 120, 66; fort taken by Dutch, 120, 17; German consul, 120, 77; headquarters of disciplinary battalion, 120, 44; headquarters of Governor-General, 120, 24; market for imports, 120, 74; oil and soap factory, 120, 72; Paulo Dias makes treaty with Congo chief at, 1574, 115, 24; population, 120, 11; Portuguese recover, 120, 18; Portuguese rule, extension northwards from, 115, 27; post and telegraph, 120, 35; railway, 120, 48; schools, 120, 27, 28; soap-boiling, 120, 72; temperature, 120, 8.

Loanda-Benguella and Mossamedes, tariff, 120, 79-80.

Loanda (Trans-African) railway, 120, 20, 30-1, 33, 35.

Loange river, 120, 2.

Loangwa, *see* Aruangua.

Lobito, 120, 36, 37, 42, 58; harbour and railway communications, 120, 74; Katumbella incorporated in, 120, 29-30; roads, 120, 29; salt-pans, 120, 71; as trade centre, 120, 74-5; vice-consul, 120, 77.

Lobito bay, 120, 5, 20, 34; railway, 120, 33.

Lobito, Benguella and Katumbella Electric Light and Power Co., 120, 77.

Locomotives, import, 119, 34.

Loema (Loémé), or Louisa Loango river, 120, 1.

Loje (Loge) river, 120, 5, 27, 32, 80.

Lombadas, mineral springs, 116, 30.

Lombiye river, 120, 70.

London, 120, 85, 121, 97; shipping services, 116, 40, 121, 54.

Loo Rock, *see* Ilhéu.

Lopez, Duarte, 120, 16; as religious mendicant, 120, 16; sent from Congo to ask Spanish assistance and re-establishment of Christianity for Congo, 120, 16.

Loquats, cultivation, 116, 28, 43, 121, 71.

Louisa Loango, *see* Loema.

Lourenço Marques district, 121, 1, 34; cattle breeding, 121, 71; land tenure, 121, 74; missions, 121, 33, 34.

Lourenço Marques port and town, 121, 4-5, 7, 10, 13, 16, 28, 29, 39, 45, 82, 87, 89; abandoned, 121, 29; banks, 121, 92; cable station, 121, 55; capital of Mozambique, 121, 1, 34, 35; climate, 121, 11, 12; currency, 121, 91; French raid, 121, 27; industries, 121, 79; language, 121, 18; local authorities, 121, 44; market, 121, 80; nationalities in, 121, 14, 15, 19; population, 121, 19; postal rates, 121, 45; railway, 121, 40, 43; seat of government at, 115, 11; shipping, 121, 53-5, 89, 104; trade, 121, 62, 64, 84; wages, 121, 58; whaling company, 121, 76; white settlers, 121, 14.

Lourenço Marques-Pretoria Railway, 121, 41.

Luabo Company, 121, 94.

Luakanu river, 120, 2.

Lualaba river, 120, 21.

Luapula river, 120, 21, 121, 30

Lubango, *see* Sá da Bandeira.

Lubinda river, 120, 1.

Lüderitz Bay, diamond mines, 120, 44.

Luia (Ruia) river, 121, 2.

Lujenda river, 121, 6, 8, 10, 17, 33.

Lukalla, 120, 74.

Lukalla river, *re* utilisation of falls, 120, 73.

Lukalla valley, iron, 120, 70.

Lukalla-Malange Railway, 120, 33, 35.

Lukula river, 120, 1.

Lulofe river, **120**, 1, 2.
 Lumber, import, **116**, 57, 58.
 Lunda, Central African Kingdom, **120**, 4, **121**, 30.
 Lunda district, copper ore, **120**, 69-70; headquarters Malange, **120**, 27; labour conditions, **120**, 41; population, **120**, 11; railway, **120**, 33, 74; rubber trees, **120**, 53; towns and communications, **120**, 35.
 Lunde river, **121**, 2, 96, 98 99.
 Lunga lagoon, **120**, 2.
 Lungwe-Bungo river, **120**, 32.
 Lupata (Luapata), **121**, 9.
 Lurio bay, **121**, 52.
 Lurio river, **121**, 10, 34, 38.
 "Lydzamheid," Dutch fort, **121**, 28.
 Lyne, R. N., **121**, 73.

M.

Macao, Chinese convicts deported from, **118**, 25; remains Portuguese possession, **115**, 26.
 McDonell, Consul-General, report, **121**, 47.
 Machico, population, **116**, 14; road, **116**, 37; sailings to, **116**, 40.
 Machinery, **119** 31; import, **116**, 34, 35, 57, **119**, 33, 34, **121**, 48, 59, 87, 88.
 MacMahon, Marshal, arbitration *re* Delagoa Bay, **115**, 11, **121**, 29.
 McMyler hoist, **121**, 47.
 Madagascar, discovery of, **115**, 13; French factory and trading station, **121**, 26, 27, **121**.
 Madal Co., **121**, 65.
 Madeira, *see also* Contents **116**; **121**, 54; cable, **117**, 18, **118**, 18, **119**, 20; colonists from, **120**, 19-20; discovery of 1418-20, **115**, 4; emigration, **120**, 20; German designs on, **116**, 22; market for salt fish, **117**, 28; population, **115**, 4; wine, decline in popularity, **116**, 45.
 Madras, **121**, 92.
 Mafia (or Mamfia), payment of tribute by, **115**, 13.
 Mafras, Gulf of, *see* Biafra, Bight of.
 Mafureira (oil-seeds), export, **121**, 85, 86.
 Magalhães, circumnavigation of the globe by, **115**, 19; Spanish expedition commanded by, **115**, 19.
 Maganja da Costa (Eastern Quelimane), **121**, 6.

Magdalena, **119**, 14; banana plantations, **116**, 14, 43; sailings to, **116**, 40.
 Magnetic iron ore, *see* Iron ore.
 Magnetite, **121**, 77.
 Magwangeras tribe, raiders and fighters, **121**, 18.
 Mahemasemika (Massimique), **121**, 98.
 Mahrattas, English help Portuguese in wars with, **115**, 26; ruin of Portuguese rule on mainland of India by, 1737-40, **115**, 26.
 Maia, **116**, 4, **117**, 1; colonised, 1490, **117**, 9; description, **117**, 3; given to Dom Fernando, 1462, **117**, 8; population, **117**, 7; postal arrangements, **117**, 13; salt, **117**, 29.
 Maize, cultivation, **116**, 27, 42, **117**, 22, 27, **118**, 21, **121**, 59, 60, 61, 64, 94; export, **116**, 32, 33, **117**, 22 32, **121**, 48, 85, 86; import, **116**, 32, 33, 57, 58, **117**, 23; market for, **118**, 21.
 Makdishu, *see* Mogadishu.
 Makival, light railway, **121**, 42.
 Makondes, dialect of, **121**, 18.
 Makuze river, **121**, 38.
 Makwa, dialect, **121**, 18.
 Makwas, tribe, **121**, 15, 17, 26.
 Malabar, **115**, 14; opposition to Portuguese in, **115**, 15.
 Malacca, Portuguese seize, **115**, 10, 18; trading centre for Spice Islands and China, **115**, 18.
 Malachite, **120**, 68-9, 80, **121**, 77.
 Malaguetta mountains, **117**, 3.
 Malange, headquarters of Lunda district, **120**, 27; mission, **120**, 26; railways, **120**, 33, 35, 48, 74; temperature, **120**, 8.
 Malaria, **117**, 5, **118**, 5, **119**, 3, 23, **120**, 9, **121**, 13, 16, 51.
 Malay States, rubber, **121**, 69.
 Malaya, **119**, 16.
 Maldives, **119**, 25.
 Malinda, **115**, 28; friendly to Portuguese, **115**, 11-2, 12; shares in attack of Turks, 1584, **115**, 12.
 Mallonga, **120**, 2.
 Malosa, **121**, 3.
 Mamlūk Sultans of Egypt, **115**, 16.
 Mancanhas, tribe, **118**, 6.
 Manchester, cotton goods, **117**, 30, 31, **118**, 31, **120**, 80.
 Mandingos, tribe, **118**, 6, 26.
 Manganese, **116**, 50.

- Mangoes, cultivation, **116**, 43, **117**, 22, **121**, 71.
 Mangrove bark, export, **121**, 48, 50, 71, 85, 86.
 Mangrove swamps, **121**, 6.
 Mangwingi (Munhinga) river, **121**, 99.
 Manika, **121**, 5, 96; cattle breeding, **121**, 71; feira, attempt to revive, **121**, 30; gold mining, **121**, 77.
 Manika Plateau Boundary, arbitration re, **121**, 98.
 Manila hemp, **120**, 50.
 Manioc, *see* Cassava.
 Manjacos, tribe, **118**, 6, 19, 26, 27.
 Mansoa, rice cultivation, **118**, 21; telegraphic connection, **118**, 16.
 Mansoa, Rio, **118**, 3, 15, special permission required to visit ports of, **118**, 16.
 Manuel I, King of Portugal, **115**, 11, 15, **121**, 23; instructions of, re securing of Portuguese power in the East, **115**, 17.
 Manufactures, Angola, **120**, 72-3; Azores, **116**, 31; Madeira, **116**, 50-2; Mozambique, **121**, 78; Portuguese Guinea, **118**, 26.
 Manzhakaze, **121**, 41.
 Mapira (Kaffir corn), **121**, 85.
 Maputo, *see* Usuto.
 Maranta arundinacea, **116**, 45.
 Maravia country, **121**, 6.
 Marble, **121**, 77.
 Marconi Co., **116**, 41, **120**, 38.
 Maria II, Queen of Portugal, **116**, 18, 22, **117**, 9.
 Maria Pia, tribunal to relieve congestion at Mindello, **117**, 11.
 Maria Teresa, Empress, settlers sent out by, **121**, 28-9.
 Markets, Mozambique, **121**, 80.
 Marques, Lourenço, visits Umbeluzi river, **121**, 27, 28.
 Marqueterie, inlaid tables, &c., trade in, **116**, 52.
 Marseilles, **121**, 73; exports to, **121**, 86; market for purgueira, **117**, 23; sailings, **116**, 40.
 Martinez, Monte, **117**, 2.
 Martins, Oliveira, **120**, 62-3.
 Marvaud, Angel, on banana crop, **116**, 43.
 Mashonaland railway, **121**, 2, 43.
 Massabe, port, **120**, 5.
 Massabe (Masabi) river, **120**, 5.
 Massi-Kessi, **121**, 2, 41, 96; bank, **121**, 92; maize-growing, **121**, 64; minerals, **121**, 76, 77.
 Massimique, *see* Mahemasemika.
 Mastos, Cabo dos, **115**, 5; Gonçalves said to have sailed to, **118**, 8-9.
 Matadane Concession, **121**, 67; coconut palms, **121**, 64.
 Matches, import, **116**, 34.
 Matolla river, **121**, 10, 37, 45, 96.
 Matos, Norton de, Governor-General of Angola, **120**, 27-8, 38-40, 63.
 Mats, manufacture, **116**, 31, **121**, 78.
 Mauritius, island of, Dutch colony on, **115**, 27; hemp, ramie and sansevieria, **121**, 68.
 Mavias, tribe, **121**, 17.
 Mavitis, tribe, raiders, **121**, 17.
 Mayumbe, cocoa, **120**, 48.
 Mazimbwa (Mocimboa), graphite, **121**, 77.
 Mazimbwa (Mocimboa) bay, **121**, 52.
 Mazoe river, **121**, 2, 96.
 Mbrije river, *see* Brije.
 Mbundo language, **120**, 9.
 Mealie meal, export, **121**, 86; import, **121**, 87.
 Meat, preserved, import, **121**, 86, 88.
 Mello, Duarte de, **121**, 24; Mozambique fort founded by (1507), **115**, 10.
 Memba bay, **121**, 7, 52.
 Memba Minerals, Ltd., **121**, 76.
 Mergui archipelago, **119**, 25.
 Messageries Africaines, **118**, 18.
 Metade, mountain stream, **116**, 10.
 Metals, import, **119**, 33.
 Mexican aloe, **117**, 22.
 Mica, **121**, 77.
 Miguel, Dom, overthrow of, 1832, **116**, 18, 22; Ribeira Grande sacked by supporters of, 1831, **117**, 9; usurps throne of Portugal, 1831, **116**, 18.
 Miguelist disturbances, Madeira involved (1828), **116**, 22.
 Milk, preserved, import, **121**, 87.
 Millet, cultivation, **116**, 27, **121**, 59, 60.
 Mindello, port and city, **117**, 37; British in coaling and telegraph business, **117**, 6; cable centre, **117**, 7; coaling station, **117**, 2, 7, 15, 17; description, **117**, 14-5; founded and made a capital of archipelago (1838), **117**, 9; meteorological observations taken, **117**, 4-5; population, **117**, 7; quarantine establishment, **117**, 15; sailings, **117**, 18; trade, **117**, 17; tribunal, islands under jurisdiction, **117**, 11.

- Mineral oils, import, **121, 87.**
- Mineral rights, State reservation, **121, 73.**
- Mineral springs, Azores, **116, 1, 30;** Cape Verde Islands, **117, 29;** Madeira, **116, 50;** San Miguel, **116, 4.**
- Mineral waters, duty free, **117, 34;** export, **116, 33;** manufacture, **117, 29.**
- Minerals, Angola, **120, 68, 85;** Azores, **116, 30;** Cape Verde Islands, **117, 28-9;** Madeira, **116, 50;** Mozambique, **121, 76-8;** Portuguese Guinea, **118, 25-6.**
- "Mines of Monomotapa," Captain-Generalship, **121, 24;** Governorship (1609), **121, 24.**
- Mir Husain, Egyptian fleet under, defeats Portuguese fleet (1507), **115, 16.**
- Missale, gold mining, **121, 77.**
- Missions, **118, 12, 120, 26, 121, 33, 34.**
- "Mittel Africa" scheme, **115, 29, 121, 84.**
- Mkya railway, **121, 42.**
- Mkumvura river, **121, 2.**
- Mkweme, *see* Jikungu.
- Moamba, **121, 40, 41.**
- Mocimboa, *see* Mazimbwa.
- Mogadishu (Makdishu), **115, 9, 28;** Seyyid Said of Muscat rules, **1828, 115, 13;** taken by Turks, **1586, 115, 13.**
- Mohammedan Powers, hostile to Portuguese, **115, 16;** toll on European goods, **121, 22.**
- Mohammedan schools, **121, 34.**
- Mohammedans, **118, 21, 121, 15, 33.**
- Mohit or "The Ocean," survey by Sidi Ali, **115, 21.**
- Mokambo bay, **121, 52.**
- Mokulla, ivory trade, **120, 58.9.**
- Moluccas, claimed by, and awarded to, Spain, **115, 19;** Portuguese buy out Spanish claim, **115, 19;** taken by Dutch, **115, 24.**
- Moma river, **121, 38, 52.**
- Mombasa, **115, 28;** bank, **121, 92;** centre of large trade, **115, 11-2;** destroyed by Portuguese, **1528, 115, 12;** harbour guarded by forts, **115, 12;** Portuguese fort (1594), **115, 12;** stormed and sacked by Portuguese (1505), **115, 12;** tribute refused, **115, 12.**
- Monhes (natives and Asiatic Moslems), **121, 15.**
- Monomotapa, *see* Benametapa.
- Monte, tribe, **121, 33.**
- Monte Café, **119, 2, 14, 15.**
- Monteiro, Joachim, **121, 30, 58, 59, 68, 69, 80, 81.**
- Montluc, Pierre Beltrau de, Funchal attacked by raiders under (1566), **116, 21, 119, 6.**
- Moors, Madeira, **116, 13.**
- Mopeia, **121, 72.**
- Moreira, Junior, Portuguese Colonial Minister, **117, 28.**
- Morro das Langostas, gypsum and sulphur, **120, 70.**
- Morro Grande, mountain, **116, 2.**
- Morro Peixe, man-of-war roadstead opposite, **119, 17.**
- Morso, custom house, **118, 31.**
- Moshiko (Mosiko), **120, 4.**
- Moslem chiefs, **121, 35.**
- Mosoril, *see* Mossuril.
- Mossamedes district, **120, 32;** cattle breeding, **120, 58;** headquarters, **120, 27;** population, **120, 11;** towns and communications, **120, 35;** trade openings, **120, 75, 85.**
- Mossamedes port and town, **115, 27, 119, 29, 120, 4, 5, 36;** agricultural colony under control of, **120, 20;** cable, **119, 20, 120, 35, 38;** Chamber of Commerce, **120, 76;** climate, **120, 8;** coasting service, **120, 37;** colonisation of (1839), **120, 19;** copper, **120, 69;** development of, **120, 19;** disciplinary company, **120, 44;** explorers start from, **120, 21;** fish block, **120, 67;** fish-curing and whaling industry, **120, 66;** founded, **120, 19;** German consul, **120, 77;** meat supply for British cruisers at, **120, 58;** population, **120, 11;** railway, **120, 20, 33-4, 35.**
- Mossamedes, Baron de, Governor-General of Angola, town founded by (1785), **120, 19.**
- Mossamedes natives, and labour, **120, 42.**
- Mossulo country, **120, 52.**
- Mossuril, railway, **121, 40, 42.**
- Mossuril (Mosoril) bay, **121, 7, 52.**
- Mossurize country, minerals, **121, 76.**
- Mosteiros, mineral springs, **116, 30.**
- Motor cars, import, **116, 35, 54, 57, 58.**

- Mozambique, *see also* Contents, **121** ; included in "Mittel Africa" scheme, **115**, **29** ; labourers, **119**, **21**, **22** ; maize, **117**, **23**, **33**.
- Mozambique, port and town, **121**, **7**, **80**, **82** ; administrative centre, **121**, **24** ; Arab suzerainty over, **115**, **11** ; Arabs seize all East African stations north of, **115**, **26** ; banks, **119**, **36**, **121**, **92** ; Dutch siege fails (1607), **115**, **27** ; English firm, **121**, **82** ; forts, **115**, **10**, **10-1**, **121**, **22**, **24** ; population and nationalities, **121**, **20** ; Portuguese rule, **115**, **28** ; roads, **121**, **36** ; sailings, **120**, **37**.
- Mozambique Channel, **121**, **7**.
- Mozambique Chartered Company, *see* Companhia de Moçambique.
- Mozambique Island, **121**, **26** ; cable station, **121**, **55** ; description, **121**, **50-1** ; discovery, **121**, **22** ; wireless, **121**, **55**.
- Mozambique, sheikh of, **121**, **23**.
- Mozambique Treaty (1909), **121**, **57**, **89**.
- Msangezi river, **121**, **2**.
- Msasiri, fort, abandoned, **121**, **30** ; restored, **1818**, **121**, **30**.
- Msinje river, **121**, **3**, **95**, **100**.
- Mtangula, harbour, **121**, **39**.
- Mtarika, **121**, **42** ; telegraph, **121**, **45**.
- Mtengula, **121**, **42**.
- Mucancalas, **120**, **10**.
- Mujojos (Arabs), **121**, **15**.
- Mules, **117**, **24**, **121**, **71-2** ; import, **120**, **58**.
- Munda range (Serra da Munda), **120**, **20**.
- Munene river, **121**, **36**, **99**.
- Murad Bey, defeated by Portuguese, **115**, **21**.
- Muscat, Arabs take (1652), **115**, **26** ; attacked by Portuguese (1507-8), **115**, **17** ; fight between Sidi Ali and Portuguese fleet off, **115**, **21** ; fort at, and mastery of Arabian coast, **115**, **19** ; fort taken by Piri Bey (1551-2), **115**, **21** ; Imams of Oman take possession of, **115**, **13** ; Portuguese control coast of Arabia from, **115**, **14**.
- Muscat, Imams of, power extends to Kilwa, **115**, **11**.
- Mussapa Pequeno, *see* Little Mussapa.
- Musserra, bitumen, **120**, **71**.
- Mussulman powers, *see* Mohammedan.
- Mussulman States, formed from Bahmani kingdom, **115**, **15**.
- Mutassa, **121**, **96**.
- Mutu Canal, **121**, **49**, **72**.
- Muza valley, gold mining, output, **121**, **77-8**.
- Mwalia, graphite, **121**, **77**.
- Mweru, lake, **121**, **30**.

N.

- Naartjes, cultivation, **121**, **71**.
- Nalus, tribe, **118**, **6**, **9**.
- Namuli, mountain, **121**, **6**.
- Nana Kandundu (Nyakatoro), **120**, **4**.
- Napoleonic Wars, Madeira occupied by British during, **116**, **22**.
- Nassau, John Maurice, Prince of, Governor of Dutch provinces in Brazil (1634-44), **115**, **25**.
- Natal, **121**, **63**.
- Natal Line, **121**, **54**.
- National Bank of India, **121**, **92**.
- National Bank of South Africa, **121**, **92**.
- N'Dala Tando, headquarters of Quanza district, **120**, **27**.
- Neapolitans, coral industry in hands of, **117**, **29**, **31**.
- Negapatam, taken by Dutch (1658), **115**, **25**.
- Negro-Portuguese language, **119**, **3**.
- Netherlands, *see* Holland.
- Netherlands Line, **121**, **55**.
- Neves Ferreira, **120**, **31**.
- New York, cable with Azores, **116**, **26** ; shipping services, **121**, **54**.
- New Zealand, **121**, **55**.
- Newfoundland, salt cod from, **119**, **28-9**.
- Ngami, Lake, **120**, **6**, **32**.
- Nickel, **121**, **77**.
- Nigeria, oil-palm, **120**, **53**.
- Nilotic lands, **121**, **18**.
- Nime Chima, plateau, **120**, **1**.
- Nippon Yusen Kaisha Line, **121**, **54**.
- Nizamshāhī, Kingdom of, **115**, **15**.
- Nogui, *see* Noki.
- Noki (Nogui), **120**, **3**, **5**, **31**.
- Noli, Antonio de, **117**, **8**.
- "Noord" Dutch ship, **121**, **28**.
- Norddeutscher Lloyd Line, **116**, **40**.
- Noronha, Antonia de, Turks driven out of El-Katig by, **115**, **21**.
- Noronha, Fernando de, Sidi Ali defeated by (1554), **115**, **21**.
- Norte, Serra do, **117**, **3**.
- Northern Africa, cable, **121**, **55**.
- Northey, General, supplies from native tribes, **121**, **61**.

- Norwegians, whaling, **120**, 66, 67, **121**, 76.
 Nossa Senhora da Luz (English Road) harbour, **117**, 7.
 Nova, João da, expedition to Calicut, **1501-2**, **115**, 14; traduces and heads mutiny against d'Albuquerque, **115**, 17.
 Nova Java, **119**, 14.
 Nova Scotia, cable with Azores, **116**, 26.
 Novaes, Paulo Dias de, Portuguese power revived by, **115**.
 Novo Redondo, **120**, 49; bee-keeping, **120**, 60; cattle-breeding, **120**, 58; oil palms, **120**, 52; population, **120**, 11; sugar industry, **120**, 72, 73.
 Nyakatoro, *see* Nana Kandundu.
 Nyasa Chartered Company, *see* Companhia do Nyassa.
 Nyasa, Lake, **121**, 3, 4, 6, 9, 10, 18, 31, 33, 34, 35, 38-9, 42, 56, 95, 97, 100; land leased to Portugal, **121**, 100; Protectorate (1889), **121**, 31; railway, **121**, 40.
 Nyasaland, **120**, 23, **121**, 40; cotton, **121**, 68; mission stations, **121**, 31; railway, **121**, 10.
 Nyasas (Anyanjas), characteristics, **121** 18.
 Nyassa Consolidated, Ltd., **121**, 83.
- O.**
- Odzi river, **121**, 99.
 Oeiras smelting iron works, **120**, 70.
 Office instruments, import, **121**, 87.
 Oidium, **116**, 28.
 Oidium tuckeri, **116**, 45.
 Oil, **118**, 35, **119**, 23, **121**, 60, 77, 94; export and import, **116**, 35, **119**, 32.
 Oil and soap factory, **121**, 79.
 Oil-palms, **118**, 21, **119**, 24, **120**, 48, 52-3, 85.
 Oil-seeds, **119**, 23, **121**, 60, 61, 70, 94.
 Oil-stuffs, duty, special rate, **118**, 31.
 Oja (Ozi) sacked by Tristão da Cunha, **115**, 12.
 Okawango, *see* Kubango..
 Okovango river, **121**, 97.
 Olifants river, **121**, 2.
 Olifants valley, irrigation, **121**, 72.
 Olinda, taken by Dutch (1628), **115**, 25.
 Omân, **115**, 16; Imams of, extension of power of, 1698, **115**, 13.
 Onions, cultivation, **116**, 43; export, **116**, 55, 56.
 O Pico, mountain, **116**, 3.
 Oporto, **116**, 18; wines, **116**, 21.
 Orange wine, production, **117**, 22.
 Oranges, cultivation, **116**, 27, 43, **117**, 22, **121**, 71; export, **116**, 16; introduced into Azores, **116**, 16; loss of trade, **116**, 19.
 Orango island, **118**, 3.
 Orchilla, **116**, 28.
 Ore, Rhodesia, **121**, 41.
 Oro Point, **121**, 2.
 Osier (*Salix Viminalis*), **116**, 45-6; export, **116**, 51.
 Osorio, Balthazar, Portuguese naturalist, on fish in Cape Verde Archipelago, **117**, 27.
 Otavi, copper mines, **120**, 34; railway, **120**, 34, 44.
 Ottoman Turks, power of, **115**, 16.
 Ovambo country, German railway scheme, **120**, 44; labour recruiting, **120**, 43-4; and Portuguese control, **120**, 44.
 Owen, Captain, **121**, 29.
 Oxen, liability to disease, **120**, 58.
 Ozi, *see* Oja.
- P.**
- Pacific Steam Navigation Co., **117**, 18.
 Padrão, Cabo (Cape Padron), **115**, 7, **120**, 13.
 Padrões (stone column), Diogo Cão erects, **115**, 7, **120**, 13, 14.
 Pafuri river, **121**, 2.
 Pagans, Portuguese Guinea, **118**, 11.
 Paint, manufacture, **116**, 52.
 Palanque, M. Celestin, **119**, 30.
 Palm-kernels, export, **118**, 21, 29, **120**, 47, 78.
 Palm-oil, export, **118**, 29, **120**, 47; price, **120**, 53.
 Palm-oil casks, import, **120**, 76.
 Palma, telegraph, **121**, 45.
 Panama Canal, **116**, 25, 36.
 Panda, potteries, **121**, 79.
 Panga, Mount, **121**, 98.
 Papeis, tribe, **118**, 5, 6, 19, 26; rising of, **118**, 10.
 Paper, import, **116**, 57, **121**, 87.
 Parahiba, occupied by Dutch, 1634, **115**, 25.

- Parapat**, *see* **Angoche**.
Parinariums, **121**, 73.
Paris, **120**, 85.
Partida Regionalista, semi-political commercial union, **116**, 31.
Passaros, Ilheu dos, lighthouse, **117**, 15.
Passe des Pilots, **118**, 2.
Patea river, **118**, 3.
Patria Nova School, Bihé, **120**, 28.
Paul do Mar, sailings to, **116**, 40.
Paul da Serra, **116**, 10.
Pawpaw, cultivation, **116**, 43, **117**, 22.
Peaches, cultivation, **117**, 22, **121**, 71.
Peak of San Thomé, **119**, 7.
Pears, cultivation, **117**, 22, **121**, 71.
Pearls, **121**, 76.
Peas, cultivation, **116**, 43, 44, **121**, 59; export, **121**, 86.
Pecixe island, **118**, 3.
Pedro, King of Portugal (17th century), **116**, 21.
Pedro, Dom (ex-Emperor of Brazil), attacks and defeats Miguelists, **116**, 18; declares Azores province of Portugal, 1832, **116**, 18; Madeira and, **116**, 22.
Pedro Lume, salt industry, **117**, 30.
Pemba, payment of tribute by, **115**, 13.
Pemba (Pomba) Bay, **121**, 7; description, **121**, 51; minerals, **121**, 77; railway project, **121**, 35.
Peninsular War, **116**, 22.
Pepinella, cultivation, **116**, 43.
Pereira, Manoel Silveira, Conquistador of Benguela, and Governor of Angola, **115**, 13, 27, **120**, 17, 19.
Perestrello, Bartolomeu, **116**, 20.
Perestrello family, Madeira under rule of, **116**, 21.
Pernambuco, cable, **116**, 41, **117**, 18; occupied by Dutch, 1635, **115**, 25.
Persia, power of, **115**, 16; Turkish Sultan and, **115**, 18.
Persian Gulf, **115**, 19-20, **120**, 19, **121**, 22; ports in hands of Turkey, **115**, 8-9.
Persimmons, cultivation, **121**, 71.
Petrol, import, **116**, 35.
Petroleum, **120**, 7, 68, 70, 77; import, **116**, 34, 35, 57; natives make fetish to conceal existence, **120**, 71.
Philip II, King of Spain, and Azores, 1580, **116**, 17; Dutch excluded from Lisbon by, 594, **115**, 24; and Eastern trade, **115**, 9; King of Congo asks for assistance from, **120**, 16; Madeira under rule of, 1580, **116**, 21; Portugal under rule of, 1580, **115**, 22, **121**, 25.
Philippa, Queen (daughter of John of Gaunt), **115**, 4.
Philippi, W., & Co., **121**, 80, 81.
Philippines, Spanish-Portuguese fleet destroyed off, **1615**, **115**, 24.
Phthisis, *see* tuberculosis.
Phylloxera, **116**, 28, 45.
Pico, **116**, 6; description, **116**, 3; population, **116**, 8; towns, **116**, 8; viticulture, **116**, 28.
Pigafetta, F., account of, **120**, 16.
Pigeons, **121**, 72.
Pigs, **117**, 24, **118**, 23, **120**, 57-8, **121**, 72.
Pilotage, sea-craft and fish-curing, school for, **117**, 12.
Pinda, port, seized by Dutch, **120**, 16.
Pineapples, cultivation, **116**, 28, **117**, 22, **121**, 71; export, **116**, 28, 32, prohibited, **116**, 43.
Pinto, Major Serpa, expedition under, 1877-8, **120**, 21, **121**, 31; interferences in Barotse kingdom, **120**, 24.
Piri Bey, naval expedition under, 1550-2, **115**, 21; defeated by Portuguese, and beheaded, **115**, 21.
Pitons, description, **116**, 11.
Plata, Rio de la, cable, **117**, 18, **118**, 18; country between Amazon and, belongs to Portugal, **115**, 22.
Plateau country, **120**, 3.
Platters and wooden spoons, **121**, 78.
Pleuro-pneumonia, **120**, 58.
Plums, cultivation, **117**, 22.
Pneumonia, **119**, 3.
Po, Fernão do, island of Fernando Po (Formosa), discovered by, 1478, **119**, 6.
Poizo, **116**, 38.
Polana Bar, **121**, 46.
Pomba, *see* **Pemba**.
Pombal, measures of reform, **115**, 28.
Pomegranates, **116**, 28.
Pongolo river, **121**, 2, 96.
Ponta, tenure by, **118**, 25.
Ponta island, **118**, 3.
Ponta da Cruz, **116**, 9.

- Ponta Delgado, **116**, 4, 24-5; aerodrome, **116**, 37; American armies use, 1917-8, **116**, 37; banks **116**, 36; bombarded by German submarine, **116**, 37; capital of Eastern Azores, 1836, **116**, 18-9; climate, **116**, 6; as coaling station, **116**, 25; emigrants, **116**, 26; founding of, **116**, 16; headquarters of Partida Regionalista, **116**, 31; industries, **116**, 31; population, **116**, 8; war rendezvous, 1917-8, **116**, 37; wireless, **116**, 26.
- Ponto Ferraria, mineral springs, **116**, 30.
- Ponta da Mina, **119**, 17.
- Ponta do Pargo, **116**, 9; sailings, **116**, 40; wireless, **116**, 41.
- Ponta de San Jorge, **116**, 9.
- Ponto Santo, bestowed on Perestrello, **116**, 20; Gonçalves reports to Prince Henry *re*, **116**, 20; occupation of, **116**, 20.
- Ponta do Sol, iron ore, **116**, 50; population, **116**, 14; sailings, **116**, 40.
- Ponta Temerosa, **117**, 16; lazaretto, **117**, 16; rocket apparatus, **117**, 16;
- Population, Angola, **120**, 10-1; Azores, **116**, 7-9; Cape Verde Islands, **117**, 6-7; Madeira, **116**, 13-4; Mozambique, **121**, 18-20; Portuguese Guinea, **118**, 7; Principe, **119**, 4; San Thomé, **119**, 4.
- Porphry, **120**, 69.
- Port Amelia, **121**, 39, 54; cyclones, **121**, 51; description, **121**, 51; immunity from malaria, **121**, 51; railway, **121**, 40, 42; ships visiting, nationalities, **121**, 52-3; telegraph, **121**, 45.
- Port Duarte Pedroso, **121**, 52.
- Port Elizabeth, **121**, 46.
- Port Herald railway, **121**, 42.
- Port Mansoa, road, **118**, 14.
- Port Mokambo (Kivolani Bay), **121**, 7.
- Porto Alexandre, **120**, 36, 37, 44, 70; cargo to, **119**, 19; coasting service, **120**, 37; fish-curing and whaling industry, **120**, 66.
- Porto Grande, **117**, 2; fever, **117**, 5.
- Porto Moniz, Lagoa at, **116**, 9; proposals *re*, **116**, 38, 39.
- Porto Santo, **116**, 9; Columbus lives in, **116**, 21; description, **116**, 10-1; first landing at, 1418, **116**, 19; harbour, **116**, 39; manganese, **116**, 50; naming of, **116**, 19-20; plague of rabbits, **116**, 20; population, **116**, 14; sailings to, **116**, 41; wheat cultivation, **116**, 42.
- Port wine, treaty delayed by dispute *re*, **119**, 33.
- Portella, pass, **116**, 9.
- Portella Corotova, **120**, 4.
- Porthcurno (England) cable, **116**, 26, 41, **118**, 18.
- Portinha bay, **116**, 39.
- Portland cement, import, **116**, 52.
- Ports, Angola and Cabinda, **120**, 5, 36-7; Azores, **116**, 24-5; Cape Verde Islands, **117**, 14-7; Madeira, **116**, 38-9; Mozambique, **121**, 45-52; Portuguese Guinea, **118**, 3, 16; Principe, **119**, 17; San Thomé, **119**, 16-7.
- Ports of call, Azores, **116**, 17; Madeira, **116**, 60.
- Portugal, Bolama and adjacent coast awarded to, 1870, **118**, 9; cables **116**, 26, **117**, 18; claims *re* Zambezi and Congo, **121**, 31; colonial empire, formation of, *see* **115** Contents; colonial law, provisions of, **120**, 39-40; colonial requirements, carrying power inadequate, **119**, 19-20; colonisation schemes, **121**, 22; colonists from, **120**, 20; concessions to, **119**, 6; Congo Convention, 1885, **120**, 23, 25; Convention with France, 1886, **118**, 1, 10, 36-7; **120**, 22, 23, 25, **121**, 31; Cortes, Azores and Madeira represented in, **116**, 19, 23; currency reform, **117**, 35; Declaration with Germany, 1886, definition *re* boundaries, **120**, 2; Dutch break truce, 1643, **120**, 17; emigrants, diversion of, **120**, 20; emigration, **120**, 20; discouraged, **117**, 20; expeditions, **120**, 22, **121**, 31; fleet, wars with Egyptian fleets and Gujarāt, 1507, 1509, **115**, 16; foreign recruitment prohibited, **120**, 44; free colonists from, **119**, 3; Germany's declaration of war, effect on trade of colonies, **119**, 20; Government, concession to

Portugal—*cont.*

- Germany cancelled, **116**, 54-5, contract with Marconi Co. and, **120**, 38, endeavour *re* peasants from, **120**, 11, Loanda Railway, re-purchase by, **120**, 33, purchase of ex-German vessels from, **118**, 18, relations with Great Britain, *see under* Great Britain; horses from, **117**, 24; involved in Spanish wars, **117**, 9, **120**, 16; islands assigned to, **118**, 1-2; King of, **121**, 100, 101; mail-boats call at Praia, **117**, 17; market for salt fish, **117**, 27; missions, **121**, 33; nationalising of cargo, **121**, 87; paramount power on East African coast, **115**, 14; religious missions abolished, 1913, **121**, 33; Republican President native of San Miguel, **116**, 23; separation of Church and State, **116**, 23; shipping, **121**, 53; duties, reduction, **121**, 90-1; throws off Spanish yoke, **121**, 26; trade with, **116**, 35, **117**, 32, **118**, 29, 30-1, **119**, 18, 32, **121**, 86, 87, 88, 90-1; treaties of most-favoured-nation treatment, **119**, 33; treaty with Dahomey, 1885, **119**, 8; treaty with Germany, 1886, **120**, 22, 23, **121**, 31, 32, 100-1; treaty with Transvaal, **121**, 57, 89; wars, (18th and 19th century), **121**, 27.
- Portuguese, Angola, **120**, 10; attacked by natives, **121**, 25; and Cabinda, **120**, 25; make concessions to King of Dahomey, **119**, 8; and Delagoa Bay, **121**, 28; Dutch joined by Queen of Angola and other chiefs against, **120**, 17; Dutch massacre, 1643, **120**, 17; Ginga Bandi, Queen of Angola, wages war against, 1627, **120**, 17; lose influence in Congo, **120**, 14; massacre of, by King of Angola, **120**, 15; method of ruling, **118**, 13; in Mozambique, **121**, 14-5; in San Thomé and Principe, **119**, 21; supremacy in Indian Ocean lost, **121**, 26; treatment of, in Fouta-Djallon, **118**, 37.
- Portuguese Africa (East), *see* Mozambique; (West), *see* Angola; boundary question, **121**, 32; congestion in, **120**, 38; emigration to, **116**, 41.
- Portuguese African Colonies, arrangements *re* safety of, 1911-2, **117**, 16.
- Portuguese Colonial Empire, *see also* Contents, **115**; Church dis-established since Republic, **117**, 10; labour imported from, repatriated, **119**, 3; status and autonomy, **121**, 90.
- Portuguese convicts, descendants of, **119**, 3.
- Portuguese currency depreciation, **121**, 91-2.
- Portuguese Guinea, *see also* Contents, **118**; Cabo-Verdean emigrants to, **117**, 20; colonists from, **120**, 20; discovery, **118**, 8; mails to, **117**, 14; rights given to colonists of San Thiago, 1462, **115**, 5; seignory of remnant remaining after struggles with Dutch, **118**, 8.
- Portuguese India, financial help, **121**, 90.
- Portuguese National Shipping Co., *see* Empresa Nacional de Navegação.
- Portuguese Nyasaland, mineral survey, **121**, 76; wireless **121**, 45.
- Portuguese Possessions, **115**, 19; effect of Spanish connexion on, **115**, 24; German subjects, **121**, 101; Germany's trespasses in, **120**, 43-4; imports from, **121**, 86; and land communication, attempt, **120**, 17.
- Portuguese power, **115**, 19-20, **121**, 29.
- Portuguese traders, **121**, 28, 79, 81.
- Portuguese wines, import, **116**, 28.
- Postal Union, **121**, 44.
- Posts and telegraphs, Angola, **120**, 35; Azores, **116**, 38; Cape Verde Islands, **117**, 13, 14; continental, **121**, 55-6; Madeira, **116**, 24; Mozambique, **121**, 44-5; Portuguese Guinea, **118**, 16; San Thomé and Principe, **119**, 15.
- Potatoes, cultivation, **116**, 43; export, **116**, 40, 55, 56; sweet, abolition of alcohol-manufacturing from, compensation, **120**, 55, cultivation, **116**, 28, **117**, 22, **121**, 59.
- Pottery industry, **116**, 31, **117**, 29, **121**, 79.
- Poultry, **117**, 24, **121**, 72.

Poultry-farming, Madeira, **116**, 47.
 Pozzolan cement, clays for, **116**, 30.
 Praia, Banco Nacional Ultramarino, branch, **117**, 37; biliosa at, **117**, 5; cable, **117**, 18; capital of archipelago, **117**, 7, 9; description, **117**, 15-6; institution for acclimatization of useful exotic plants, **117**, 25; meteorological observations taken, **117**, 4-5; population, **117**, 7; postal service, **117**, 13, 14; sacked by French fleet, **1712**, **117**, 9; school of pilotage, **117**, 28; telegraphic arrangements, **117**, 14; tribunal, islands under jurisdiction, **117**, 11.
 Praia Bay, **116**, 4.
 Praia Salgada, **119**, 17.
 Praia de San Thiago, cargo to, **119**, 19.
 Prazeres, **116**, 14; stock-farming, **116**, 46; wheat growing, **116**, 42.
 Prazo Concessions, **121**, 94.
 Prazo-holders, **121**, 69; land tenure, **121**, 74-5.
 Prazos, **121**, 57; wages, **121**, 58.
 Pretoria railway, **121**, 40.
 Prevesa, naval combat at, 1538, **115**, 22.
 "Primacy of the Indies," **116**, 21.
 Primeira islands, **121**, 7.
 Prince Line, **121**, 54.
 Princess Alice Bank, fishing, **116**, 29-30.
 Princip (Ilka do Principo), *see also* Contents, **119**; cables, **119**, 20, **120**, 38; contract emigrants, **117**, 19, 20, **120**, 40-1, 42; discovery of, **115**, 6, **119**, 5-6; natives sent to cocoa plantations on, **120**, 11; surplus revenue, transfer, **117**, 34; trade, **117**, 28, **118**, 28, **120**, 58.
 Printing paper, import, **116**, 35.
 Provisions, import, **116**, 57, **117**, 33, **118**, 30, **119**, 33, **120**, 76, **121**, 48, 87.
 Pulex penetrans, Cape Verde Islands, **117**, 5.
 Pulmonary diseases, *see* Tuberculosis.
 Pumpkins, cultivation, **116**, 43, **121**, 59.
 Pungo Andongo, Technical School, **120**, 27.

Pungo Ndongo, capital of Angola, **120**, 15.
 Pungwe river, **121**, 5, 10, 38.
 Purgueira, cultivation and sale of, **117**, 23, 26.
 Purgueira oil, development of trade, **117**, 38; manufacture, **117**, 30.
 Purgueira seeds, export, **117**, 32.

Q.

Quail Island, *see* Santa Maria, Ilheu de.
 Quanza district, headquarters N'Dala Tando (Dala Tando) **120**, 27.
 Quelimane district (Zambezia), **121**, 1, 6, 7, 34, 35, 49, 72; labour, **121**, 58; plantation draining, **121**, 65; population and nationalities, **121**, 19; Roman Catholic brotherhoods, **121**, 78; tobacco, **121**, 69; wages, **121**, 58.
 Quelimane (Kiliman) port and town, **121**, 7, 14, 25, 30, 42, 61, 80, 81, 82; Banks, **121**, 92; cable station, **121**, 55; copra, **121**, 64; description, **121**, 49; exports, **121**, 71; population and nationalities, **121**, 20; railway, **121**, 40; roads, **121**, 36; whaling, **121**, 76.
 Quelimane-Shire Railway, **121**, 49.
 Quiloa, *see* Kilwa.
 Quilon, Portuguese factory, **115**, 15; taken by Dutch, 1661, **115**, 25.
 Quilts, import, **120**, 76.
 Quissembo, *see* Kinsembo.
 Quizao, bitumen (petroleum), **120**, 71.

R.

Rabaçal waterfalls, **116**, 52.
 Rabbits, plague of, **116**, 20.
 Races, Angola, **120**, 9-10; Azores, **116**, 7; Cape Verde Islands, **117**, 5-6; Madeira, **116**, 13; Mozambique, **121**, 14-8; Portuguese Guinea, **118**, 5-7; San Thomé, **119**, 3.
 Railway materials, import, **119**, 34, **120**, 79, **121**, 48, 87, 88.
 Railways, Angola, **120**, 20, 32-5, 42; Madeira, **116**, 38; Mozambique, **121**, 39-40, 43; Portuguese Guinea, project for, **118**, 16; San Thomé, **119**, 13-5.

- Rand labour, **121**, 56, 57, 59, 89.
 Rangoon, shipping services, **121**, 54.
 Rariko river, gold, **121**, 77.
 Ras Lipuu, **121**.
 Razo (Rodonda), **117**, 1, 7; description, **117**, 2.
 Recife island, capital of Dutch provinces in Brazil on, **115**, 25; fall of, 1654, **115**, 25.
 Red Sea, **120**, 14, **121**, 22; entrances to, held by State of Hormuz, **115**, 16; failure of Portuguese expeditions into, **115**, 19; ports in hands of Turkey, **115**, 8-9.
 Religious conditions, Angola, **120**, 26; Azores, **116**, 23; Cape Verde Islands, **117**, 10; Madeira, **116**, 23; Mozambique, **121**, 33-4; Portuguese Guinea, **118**, 11; Principe, **119**, 10; San Thomé, **119**, 10.
 "Revenge," fight of, **116**, 18.
 Revista Colonial, **120**, 76.
 Revwe river, **121**, 10, 99; gold mining in valley, **121**, 77-8.
 Rheumatism, **121**, 13.
 Rhodes, Cecil, visits Berlin, agreement re railways in Angola follows, **120**, 34.
 Rhodesia, **120**, 1, 2, **121**, 5, 55, 92; and Angola, boundary question, 1905, **120**, 23; native employment, **121**, 56; ore from, **121**, 41; railways, **115**, 29, **120**, 20, 34, **121**, 43; servical recruitment, **119**, 10; trade, **121**, 40, 48, 82, 86.
 Ribeira Brava, **116**, 38; bishopric of Ribeira Grande headquarters at, **117**, 10; coasting trade, **117**, 7; population, **117**, 7; sailings **116**, 40.
 Ribeira Grande, **116**, 8; attacked by Dutch, 1598, 1625, **117**, 9; bishopric, headquarters now Ribeira Brava, **117**, 10; takes part of Queen Maria II., **117**, 9; population, **117**, 7; sacked by English, 1585, 1592, **117**, 9; sacked by French fleet, 1712, **117**, 9; sacked by Miguelists, 1831, **117**, 9; wealth attracts raiders, **117**, 9.
 Ribeira Grande river, **116**, 2.
 Ribeira Julião, **117**, 2.
 Ribeira Sera, **116**, 8.
 Ribeiro, Dr. Souza, **120**, 76.
 Rice, cultivation, **118**, 21-2, **23**, **121**, 61, 72; exchange, **118**, 27; export, **118**, 29; import, **116**, 57, 58, **117**, 33; native tribe supply General Northey's column, **121**, 61.
 Rinderpest, **121**, 71.
 Rio de Janeiro, becomes capital of Brazil, 1763, **115**, 28; taken by Duguay-Trouin, 1711, **117**, 9.
 Rio de Ouro estate railway, **119**, 14.
 Risco waterfall, **116**, 52.
 "the River of good signs," (Zambezi,) **121**, 23.
 River system, Angola, **120**, 6-7, 31; Madeira, **116**, 38; Mozambique, **121**, 37-8; Portuguese Guinea, **118**, 3-4, 14; Principe, **118**, 2, **119**, 13; San Thomé, **119**, 2, 13.
 Rivières du Sud, French occupy, **118**, 10.
 Roads, etc., Angola, **120**, 29, 30; Cape Verde Islands, **117**, 13; Madeira, **116**, 24, 37; Mozambique, **121**, 36-7; Portuguese Guinea, **118**, 14; Principe, **119**, 12; San Thomé, **119**, 12.
 Robey's decorticating machines, **121**, 68.
 Rock inscription, Diogo Cão, **120**, 13.
 Rodonda, see Raza.
 Roman Catholic Church, **117**, 10, **118**, 11, **119**, 10, **120**, 26.
 Roman Catholic College, **118**, 11.
 Roman Catholic schools, **121**, 34.
 Roman Catholics, **121**, 16.
 Rombo islands, **117**, 1, 7; description, **117**, 4.
 Rome, concordat for new ecclesiastical organisation, **120**, 26.
 Rope manufacture, **117**, 30.
 Rosa, Monte, estate, **119**, 30.
 Rosario, **116**, 2, 8.
 Rotterdam Lloyd Line, **121**, 55.
 Rovuma river, **115**, 28, **121**, 3, 6, 8, 10, 17, 31, 33, 34, 38, 45, 95, 100; territory formerly German, now British, **121**, 4; wages round, **121**, 58.
 Roxo, Cape, **118**, 1, 2, 3.
 Royal Mail Steam Packet Co., **116**, 25, 40, **117**, 18.
 Ruacana, cataracts, **120**, 2.
 Rubber, **118**, 22, 23, **119**, 7, 25, **120**, 47, 53, 54, 55, 72, **121**, 70; cattle bartered for, **120**, 58; export, **118**, 29, **120**, 47, 55, 78, **121**, 85, 86.

Rubber-cleaning industry, machinery for, **120**, 72-3.
 Rubrocincta (insect pest), **119**, 27.
 Ruivo, Pico, **116**, 9.
 Rum, export, **117**, 32.
 Ruo river, **121**, 3.
 Russia, exports to, **116**, 56.

S.

Sà da Bandeira (Lubango), agricultural colony, **120**, 20; railway, **120**, 33.
 Sá Benevedes, S.C. de, Governor of Brazil, 1648, **115**, 27, **120**, 17-8.
 Sabi river, **121**, 2, 8, 10, 38, 96, 98, 99.
 Sabi valley, **121**, 5; irrigation, **121**, 72; Mohammedanism, **121**, 34.
 Sacks and sacking, import, **121**, 87.
 Sahara, **116**, 12.
 Sail Rock, **116**, 11.
 St. George, *see* San Jorge.
 St. Helena, cables, **116**, 41, **117**, 18, **118**, 18; English take, 1673, **115**, 27.
 St. Mary, *see* Santa Maria.
 St. Michael, *see* San Miguel.
 St. Vincent, *see* San Vicente.
 Sal, **117**, 1; circle, **117**, 11; description, **117**, 2-3; jurisdiction, **117**, 11; population, **117**, 7; postal arrangements, **117**, 13; salt production, **117**, 27, 29.
 Sal Rei, port, **117**, 3; population, **117**, 7.
 Saldanha, tribute, 1503, **115**, 12.
 Saldanha, Ayres de, transcontinental scheme of, 1676, 1680, **120**, 18.
 Salisbury railway, **121**, 35, 40, 41.
 Salt, **117**, 3, 29, **120**, 68, 71; duty, **120**, 81; export, **117**, 30, **121**, 86; import, **116**, 34, 35; industry, **117**, 27, 29-30, **120**, 71, **121**, 79.
 Salt cod, import, **116**, 57, **119**, 28-9.
 Salt-pans, Boa Vista, **117**, 7.
 Salvages, *see* Selvagens.
 Samphire cultivation, **116**, 45.
 San Filipe, population, **117**, 7.
 San João, redoubt, **119**, 16; telegraphic connection, **118**, 16.
 San João de Mossuril, fort, *see* Msasiri, fort.
 San Jorge (St. George), **116**, 1; cheese production, **116**, 29; description, **116**, 3; population, **116**, 8; towns in, **116**, 8.

San Lazaro, lime kilns, **116**, 50.
 San Lourenço, Madeira, **116**, 9; harbour, **116**, 5; promontory, **116**, 10.

San Miguel (St. Michael), **116**, 1, **117**, 16, **119**, 14; Dom Antonio's fleet attacks, **116**, 17; Breton settlement, tradition of, **116**, 16; description, **116**, 4; discovery (1444) **116**, 16; exports, **116**, 32, 33; harbour, **119**, 17; imports, value, **116**, 33-5; industries, **116**, 31; mineral springs near, **116**, 30; population, **116**, 8; posts, **116**, 24; roads, **116**, 24; sugar-beet industry, **116**, 27; survey, **119**, 17; tea prepared for Lisbon market in, **116**, 28; towns, **116**, 8; uninhabited when discovered, **116**, 16; viticulture, **116**, 28.

San Nicolau, **117**, 1; basket industry, **117**, 30; circle (concelhos), **117**, 11; cotton, **117**, 22; description, **117**, 2; discovery, **117**, 9; emigrants, **117**, 21; jurisdiction, **117**, 11; population, **117**, 7; seminary, **117**, 10, 12; sugar-cane, **117**, 23.

San Pedro, fort, **120**, 36.

San Salvador do Congo, *see also* Ambassa, **120**, 8; Ambassa renamed, **120**, 14; malachite, **120**, 68; mission, **120**, 26.

San Sebastião, fort and lighthouse, **119**, 13, 16; railway, **119**, 13.

San Thiago, **117**, 1; Capitania, division into, **117**, 9; circle (concelhos), **117**, 11; coffee cultivation, **117**, 22; co-operative farming, **117**, 27; description, **117**, 3; discovery, **117**, 8; elephantiasis, **117**, 5; emigrants, **117**, 21; given to Dom Fernando (1462), **117**, 8; industries, **117**, 30, 31; lime, **117**, 29; pineapples, **117**, 22; population, **117**, 7; Portuguese Guinea coast rights given to, **115**, 5; postal arrangements, **117**, 14; rights on Portuguese Guinea included in grant of (1462), **118**, 9; roads, **117**, 13; sugar-cane, **117**, 23; telegraph system, **117**, 14.

San Thomé, contract labour, **117**, 19-20, **118**, 19, **120**, 40-1, 42; decline, cause of, **119**, 7; discovery of, **115**, 6; labour, **121**, 57; natives sent to cocoa plantation, **120**, 11;

San Thomé—cont.

remains Portuguese colony, **119**, 6; surplus revenue transfer, **117**, 34; trade, **118**, 28.

San Thomé, port and town (Anna de Chaves), **118**, 2; administration **119**, 10; cable **120**, 38; cargo boat to, **120**, 38; market for salt fish, **117**, 28, for live-stock, **120**, 58; plundered (1600), **120**, 16; ship-building yard, **119**, 16-7.

San Thomé, Pico de, **119**, 1.

San Vicente (Cape Verde Islands) cable, **116**, 26, 41, **118**, 18, **119**, 20, **120**, 38; circle (concelhos), **117**, 11; limestone quarry, **116**, 50; population, **116**, 14; posts, etc.; **116**, 38; viticulture, **116**, 45; waterfalls, **116**, 52.

San, Sao, *see* **Santo**.

Sandstone and grey stone, **117**, 28.

Sandwich islands, emigration to, **116**, 19, 41, **117**, 20, **120**, 20.

Sangone bay, **121**, 52.

Sanitary conditions, Angola, **120**, 8-9; Azores, **116**, 6-7; Cape Verde Islands, **117**, 5; Madeira, **116**, 13; Mozambique, **121**, 13-4; Portuguese Guinea, **118**, 5; **San Thomé** and **Príncipe**, **119**, 3.

Sansevieras, cultivation, **120**, 50.

Santa Anna (Madeira), population, **116**, 14; post, etc., **116**, 38.

Santa Anna (**San Thomé**), road, **119**, 12.

Santa Anna do Roque, island, **119**, 17.

Santa Catarina, agricultural exports from, **117**, 17.

Santa Catherina, Cape of, **115**, 6.

Santa Cruz (Flores), **116**, 8; wireless, **116**, 26.

Santa Cruz (Gracioso), **116**, 8.

Santa Cruz (Madeira), population, **116**, 14; road, **116**, 37; sailings, **116**, 40.

Santa Cruz, (**San Thomé**), **119**, 17.

Santa Luzia, **117**, 1; description, **117**, 2; discovery, **117**, 9; uninhabited, **117**, 7; whaling station, **117**, 28.

Santa Maria, Ilheu de (Quail Island) **117**, 16; description, **116**, 4-5; discovery of, 1432, **116**, 16; population, **116**, 8; potteries, **116**, 31; salt industry, **117**, 30; wireless, **116**, 26.

Santarem, João de, alleged discovery of **San Thomé** and **Fernand Po** by, and of **Anno Bom** and **Príncipe** (1470-2), **119**, 6.

Santo Agostinho, Cape, (Cape Pa drão), padroe erected, **120**, 14.

Santo Amaro, road, **119**, 12.

Santo Antão, **117**, 1; circle (concelhos), **117**, 11; coffee cultivation, **117**, 22; cotton growing, **117**, 22; description, **117**, 1-2; discovery, **117**, 9; emigrants, **117**, 21; healthiest of Cape Verde Islands, **117**, 5; leprosy, **117**, 5; mineral springs, **117**, 29; orange wine, **117**, 22; population, **117**, 7; postal arrangements, **117**, 14; roads, **117**, 13; sacked by French fleet, **117**, 9; sugar-cane, **117**, 23.

Santo Antonio, mineral spring, **116**, 50; septic pneumonia in (1907), **116**, 13.

Santo Antonio Bay (**Príncipe**), **119**, 2; harbour in, **119**, 17.

Santo Antonio de Celulo (Libollo) mission, **120**, 26.

Santo Antonio do Principe, **119**, 4; communication between **Fernand Po** and, **119**, 19; import trade, **119**, 33; post office, **119**, 15.

Santo Antonio da Serra, **116**, 38; Lagoa at, **116**, 9.

Santo Antonio do Zaire, **120**, 5; cargo to, **119**, 19; coasting service, **120**, 37; export trade, **120**, 75.

São Filippe de Benguella founded (1617), **115**, 27, **120**, 17.

São João Baptista d'Ajuda (Whydah), **119**, 8.

São Jorge da Mina, falls into Dutch hands (1637), **115**, 26; fort, **115**, 6.

São Lourenço, *see* **Madagascar**.

São Paulo de Loanda, port, **120**, 5; canalising of Bengo to supply water for, **120**, 32; founded, 1575, **115**, 24, **120**, 15; steamers, **120**, 31; taken by Dutch (1641), **115**, 25.

São Philippe, *see* **Fogo**.

São Salvador, **115**, 23; made capital of Brazil, 1549, **115**, 23.

Sarak, factory moved to, **118**, 9; fort built, **118**, 9.

Sarna, cattle suffer from, **120**, 58.

Savi, *see* **Sabi**.

Saw-mills, **116**, 52.

Scandinavian ships, **121**, 53.

Scandinavian-East Africa Line, **121**, 55.

Scandinavian-South Africa Line, **121**, 54.

Schatzabel, Dr. **120**, 77.

Schöss, G., & Co., **120**, 77.

- Schubert, Herr, **120**, 77.
 Scientific instruments, duty free, **117**, 34.
 Sea-borne traffic, division, **121**, 89.
 Sebastião, King of Portugal, **121**, 24; expedition against Jaggas sent by, **120**, 16; new fort built at Mozambique by order of, **115**, 10-11; sends Paulo Dias to Angola as "Conquistador" and first Governor (1574), **115**, 23-4, **120**, 15.
 Seeds and plants, import, **116**, 35.
 Soixal, viticulture, **116**, 45; waterfalls, **116**, 52.
 Selim "the Grim," Sultan of Turkey, **115**, 16; conquests in the East prevented by Portuguese, **115**, 18; Egypt conquered by (1517), **115**, 18; success against Persia, **115**, 18.
 Selvagens (Salvages), **116**, 9; description, **116**, 11; fishery at, **116**, 49.
 Semaphore stations, Madeira, **116**, 38.
 Sena, **120**, 18, **121**, 3, 9, 30; attempt to cross from Angola to (1606), **120**, 17; Portuguese settlement, **121**, 25.
 Sena Sugar Co., **121**, 62.
 Senegal, asses imported from, **118**, 22; coast, fishery, **117**, 27.
 Senegal river, **118**, 8.
 Senegambia, horses from, **120**, 58.
 Septic pneumonia, **116**, 13.
 Sergipe d'El-rey, occupied by Dutch, Sernache de Bomjardim, Roman Catholic College at, **118**, 11.
 Serrao, Costa, **120**, 73.
 Serviçães, health of, **119**, 23; Principe, **119**, 4; San Thomé, **119**, 4.
 Sesame, **121**, 70; export, **121**, 85.
 Sete Cidades, **116**, 1, 4.
 Seville, Diego de, pilot, **116**, 16.
 Sewing machines, 34, import, **117**, 34, **119**, 34, **121**, 88.
 Sha Kalumbo, **120**, 2.
 Shaishai, **121**, 41.
 Shamba Point (Futa Massabe), **120**, 1.
 Sharks, **120**, 66.
 Shatt el-Arab, **115**, 21.
 Sheep, **116**, 46, **117**, 24, **118**, 24, **120**, 57, **121**, 72.
 Shehir, attacks on, and mastery of Arabian coast, **115**, 19.
 Sheringoma plateau, **121**, 5.
 Shifumbazi, gold mining, **121**, 77.
 Shikapa river, **120**, 2.
 Shikoa, **121**, 9, 38.
 Shikomo, **121**, 41.
 Shila range (Serra da Chella), **120**, 20.
 Shiloango river, **120**, 1, 5, 32; stores, **120**, 76.
 Shilwan island, **121**, 52.
 Shimei valley, gold mining, output, **121**, 77-8.
 Shimezi (Chimezi), **121**, 98.
 Shimoyo (Chimoio), roads, **121**, 36.
 Shinavane, **121**, 41.
 Shinde, *see* Chinde.
 Skingwar, railway, **120**, 33; road connection, **120**, 30.
 Shingwedzi, **121**, 2.
 Shinshaska (Chinchoxo), temperature and rainfall, **120**, 8.
 Shipbuilding yard, **119**, 16-7.
 Shipping, Angola, **120**, 37-8, 86-7; Azores, **116**, 25-6, 31; Madeira, **116**, 39-41; Mozambique, **121**, 52-5, 106; Portuguese Guinea, **118**, 18; San Thomé, **119**, 18-20.
 Shire district, **121**, 38; mission stations, **121**, 31.
 Shire river, **121**, 3, 4, 9, 17, 30, 38, 68, 95; agreements *re* free navigation, **121**, 88.
 Shire Highlands Railway, **121**, 42.
 Shirwa, Lake, **121**, 11, 39, 42, 95; railway, **121**, 40.
 Shissane, **121**, 41.
 Shitanda river, gold, **120**, 70.
 Shiuta (Chiuta) lake, **121**, 3, 95.
 Shoes, import, **119**, 33.
 Shuara (Chuara), Mount, **121**, 98.
 Siara, occupied by Dutch, 1638, **115**, 25.
 Sidi Ali, "Kapudān" of Egypt, fight with Portuguese fleet (1554), **115**, 21; blockaded at Surāt by Portuguese fleet, **115**, 22; returns to Turkey, 1556, **115**, 22.
 Sierra Leone, **119**, 20; copal tree, **120**, 52; discovery of, 1446, **115**, 6; imports from, **118**, 31; oil palm, **120**, 53.
 Silver, **121**, 25, 78, 84.
 Sisal, cultivation, **121**, 50, 61, 65-8, 94; decorticating, **121**, 79.
 Skin diseases, **121**, 13.
 Slate, **121**, 77.

- Slave revolts, San Thomé, **119, 7**.
 Slave ships, provisioning of, **119, 7**.
 Slave trade, **115, 9, 23, 27, 116, 44, 117, 9, 118, 9, 119, 6, 120, 16, 18, 47, 121, 15**; abolition, **1876, 119, 7**.
 Sleeping sickness, **117, 20, 118, 5, 119, 3, 120, 8-9, 42, 48-9**.
 Small-pox, **116, 13, 118, 5, 120, 9, 121, 13**.
 Smallwares, duty, **120, 81**.
 Smith, Howard, & Co., **121, 54**.
 Soap, import, **116, 34, 35, 121, 86, 88**; industry, **116, 31, 52, 117, 30, 120, 72**; oil for, **121, 71**.
 Soares, Fernão, Madagascar discovered by, **1506, 115, 13**.
 Sociedade Agricola de Cassequel, **120, 56, 72**.
 Sociedade d'Agricultura, **119, 27**.
 Sociedade de Emigração para San Thomé e Príncipe, **119, 22, 120, 43, 76-7**.
 Société Générale de Transports Maritimes à Vapeur, **116, 40**.
 Société du Madal, **121, 81, 94**.
 Soços, tribe, **118, 6**.
 Sodre, Graciosa colonised by, **116, 16**.
 Sofala, **115, 9, 121, 5, 10, 28, 49**; Arab suzerainty over, **115, 11**; Captain of, **121, 27**; centre of Arab commerce, **121, 36**; fort built by Portuguese, **1505, 115, 10, 121, 23**; gold brought to, **120, 14**; settlement, **121, 22**; Sheikh of, subordinate to Quiloa, **121, 23**.
 Sofala bay, **121, 52**.
 Sohār, attacked by Portuguese, **1507-8, 115, 17**.
 Sokotra, Portuguese fleets take possession of, **1506, 115, 13-14**; supply depôt for Portuguese fleet, **115, 14**.
 Solomon & Co., **121, 82**.
 Sorghum saccharinum, **119, 25**.
 Sotavento islands, *see* Leeward islands.
 Sotomayor, Governor of Brazil, **115, 27, 120, 17**.
 Sousa, Martin Afonso de, appointed Governor of Brazil, **1531, 115, 22**.
 South Africa, **121, 55, 69, 92, 96**; emigration to, **116, 41**; postal rates, **121, 45**; railway system, **121, 40**; trade with, **121, 86, 87**; treaty with Portugal ratified by, **121, 57, 89**.
 South African Postal and Telegraph Unions, **121, 45**.
 South America (Pernambuco, Bahia, and Rio de Janeiro), cable, **118, 18**; Portugal's schemes, **121, 22**.
 Southampton, shipping service, **116, 40, 121, 54**.
 South-West Africa, market for live-stock, **120, 58**.
 Souza-e-Faro, General Count de, on State railways in San Thomé, **119, 15**.
 Spain, Armada, Portuguese fleet participates in, **1588, 115, 44**; exports to, **116, 56**; fleet, storm destroys, **116, 18**; imports from, **116, 58**; Portuguese revolt from, **1640, 115, 25**; Portuguese rights in Canary Islands transferred to, **1479, 115, 5**; succession, wars of, **117, 9**; wars, Portuguese and, **115, 24**.
 Spanish Colonies, **118, 9**.
 Spanish-Portuguese Fleet destroyed off the Philippines, **1615, 115, 24**.
 Spears, making of, **121, 78**.
 Sperm oil, export, **116, 32, 33**.
 Spice Islands, Malacca as trading centre for, **115, 18**.
 Spirits, *see* Wine and Spirits.
 Standard Bank of South Africa, **121, 92**.
 Stanley, H. M., exploration, **120, 21**.
 Staves (barrel), import, **116, 57, 58, 117, 34, 119, 34**.
 Stone columns, *see* Padrões.
 Straw hats, manufacture, **116, 31, 117, 24, 30**.
 Strawberries, cultivation, **117, 22**.
 Sugar, alcohol distilled from, **116, 44, 115, 23**; export, **116, 32, 33, 120, 56, 78, 121, 47, 48, 50, 61-2, 85, 86**; import, **116, 32, 33, 55, 57, 58, 117, 33, 121, 90-1**; industry, **116, 31, 50, 117, 30, 119, 6, 120, 55-6, 72, 121, 62, 79**; British monopoly of, **116, 54**.
 Sugar-beet, **116, 27**.
 Sugar-cane, **116, 27**; abolition of alcohol manufacture from, compensation, **120, 55**; cultivation, **115, 23**; **116, 20, 42, 44, 117, 23-4, 26, 27, 118, 22, 25, 119, 6, 8, 23, 120, 47, 55, 121, 37, 58, 61, 62, 63, 72, 94**.
 Sugar manufacturing plant, exempt from duty, **120, 56**.
 Sugar producing enterprise, electric power and machinery, **120, 72**.

Suleiman, Sultan of Turkey, **115**, 18; attempt to build fleet at Suez, **115**, 19-20; frontier of, **115**, 19; Gujarāt appeals to, **115**, 20; sends fleet to co-operate with Gujarāt, **115**, 20.
 Suleiman Pasha, commands fleet sent to help Gujarāt, **115**, 20.
 Sulphate of magnesia, **120**, 71.
 Sulphur, **120**, 68, 71.
 Sungo, **121**, 9.
 Surāt, Sidi Ali blockaded at, **115**, 22.
 Swahili, language (Arabised-Bantu), **121**, 15, 18, 33, 34.
 Swakopmund, **120**, 37, 44.
 Swaziland, **121**, 96; railway, **121**, 40.
 Sweden, imports from, **121**, 87.
 Swedish-South Africa Lines, **121**, 54.
 Swiss missions, **121**, 33.
 Switzerland, imports from, **121**, 87.
 Syphilis, **117**, 5.
 Syrian traders, **118**, 27.

T.

Table Bay, Dutch settlement at, **115**, 27.
 Tanga, bank, **121**, 92.
 Tanganyika (formerly German East Africa), **120**, 18, **121**, 2, 10, 66, 83; fortified posts, **121**, 22.
 Tanganyika Concessions, Ltd., **120**, 33.
 Tanganyika, Lake, **121**, 31; telegraph system, **121**, 56.
 Tangerines, cultivation, **117**, 22.
 Tar, import, **120**, 76.
 Tarrafal, port, triangle, **117**, 16.
 Tea, **116**, 28; import, **116**, 57, 58; **121**, 48; preparation for market, **116**, 31.
 Telegraphic materials, import, **117**, 33, **121**, 88.
 Telegraphs, *see* Posts and Telegraphs.
 Tembe river, **121**, 10, 37, 45.
 Terceira, **116**, 1; centre of Spanish rule, 1583, **116**, 17; description, **116**, 4; discovery, 1450, **116**, 16; flocks and herds, **116**, 28; population, **116**, 8; posts, **116**, 24; roads, **116**, 24; Spanish force defeated, **116**, 17; sugar-beet industry, **116**, 27.
 Ternate, Portuguese settlement in, **115**, 19; Spanish settlement on island near, **115**, 19.

Terra da Lucta, railway, **116**, 38.
 Tete, **120**, 18, **121**, 9, 30; bank, **121**, 92; telegraph system, **121**, 56.
 Tete district, **121**, 1, 5, 34, 43; alluvial gold mining, **121**, 77; climate, **121**, 11, 12; mineral survey, **121**, 76; population and nationalities, **121**, 19; tobacco, **121**, 69.
 Textiles, import, **116**, 34, 35, 57, **117**, 33, **119**, 33; trade, **120**, 74.
 Thana port, **115**, 15; ceded to Portugal, 1534-5, **115**, 20; taken by Mahrattas, 1737, **115**, 26.
 Tidor, Spanish settlement on, and struggle with Portuguese, **115**, 19.
 Tile-making, **116**, 31, 52, **118**, 35.
 Timber, import, **116**, 34, 35, **117**, 33, **121**, 87; transport, **120**, 61.
 Timor, part of, remains Portuguese possession, **115**, 26; Portuguese settlement at, **115**, 19.
 Tin, **121**, 77.
 Tobacco, cultivation and industry, **116**, 28, 31, 45, 52, **117**, 24, **118**, 22, **121**, 78, 79, 94; duty, special rate, **118**, 31; export, **121**, 69, 86; import, **116**, 32, 33, 57, 58, **117**, 33, **118**, 30, **119**, 33, **121**, 48, 86, 87; natives eager to obtain, **118**, 27.
 Tomboli river, **118**, 3.
 Tonga language, **121**, 18.
 Tongas (Amatongas, Barongas), **121**, 17.
 Topo, Pico, **116**, 3.
 Tordesillas, treaty of, 1494, **115**, 19-22; revision, 1524, **115**, 19.
 Tortoise-shell, trade in, **119**, 29.
 Trade, Azores, in Portuguese hands, **116**, 31; Madeira, **116**, 21; Mozambique, **121**, 26, 84, 87, 102, 103; Santo Antonio do Principe, **119**, 18; San Thomé, **119**, 18.
 Trading, German methods, **119**, 30-1.
 Trans-African Railway, *see* Loanda Railway.
 Trans-continental communication, **120**, 17, 18, 19, 21.
 Trans-continental Empire, Portugal's claim, **120**, 22.
 Transit dues and differential treatment, Mozambique, **121**, 88, 89.
 Transvaal, Boers migrate from, **120**, 10; coal traffic statistics, **121**, 46; competitive area, **121**, 89; fron-

Transvaal—*cont.*

- tier, railway, **121**, 43; trade, **121**, 40, 47; treaty with Portugal, 1909, **121**, 57, 89.
 Traz-os-Montes estate, **119**, 14.
 Trindade, railway, **119**, 13; road, **119**, 12.
 Tristão, Nuno, death of, 1447, **115**, 5 and note, **118**, 9.
 Tsumeb, copper mines, **120**, 44.
 Tuberculosis (Phthisis), **117**, 5, **119**, 3, 23.
 Tunda, **120**, 42.
 Tunghi bay, **121**, 52.
 Turkey, fleet, attacks East African ports and is defeated, **115**, 12, expedition and retreat of, 1538, **115**, 20; naval expeditions, **115**, 20-2; struggle *re* trade routes, **115**, 8-9.
 Turkeys, **117**, 24, **121**, 72.
 Turks, expelled from Aden, **115**, 21.

U.

- Ubo Budo estate, railway, **119**, 14.
 Uganda Protectorate, Government of, native labour stimulation, **121**, 60.
 Umbeluzi river, *see* English River.
 Umtali, **121**, 41, 43; telegraph system, **121**, 56.
 União Colonial Portuguesa, **120**, 76, 77.
 União Fabril, Purgueira bought by, **117**, 23.
 Union Castle Line, **116**, 39-40, **120**, 37, **121**, 54.
 United Kingdom, *see* Great Britain.
 United States of America, decorticators, **121**, 67; emigration to, **116**, 19, 27; trade, **116**, 35, 51, 56, 58, **117**, 32, 33, **119**, 31, **120**, 52, **121**, 86-7; ore smelters in, **121**, 41; President of, award *re* Bolama, **118**, 9-10.
 Urema depression, **121**, 5.
 Usuto (Maputo) river, **121**, 2, 10, 37.

V.

- Valencia, Arab system of irrigation in, **116**, 48.
 Valleflor, Marquez de, estates of, **119**, 14, 27.
 Valour Rubber Extracting Machine Co., Ltd., **120**, 73.
 Vara, Pico da, **116**, 4.

- Vasconcellos, Carvatho, inscription on rock in Congo mentioned by, **115**, 7.
 Vasconcellos, Ernesto, on fish-curing industry, **117**, 27.
 Vatwas, *see* Zulus.
 Vaz, Tristão, lands in Madeira, 1420, **116**, 20.
 Vegetable oils, **121**, 78.
 Vegetable products, **118**, 20.
 Vegetables, cultivation, **116**, 42, 43, 44; export, **116**, 32, 55; import, **117**, 34, **119**, 33, **121**, 87, 88; trade in, **117**, 32.
 Venereal diseases, **121**, 13.
 Venga, Mount, **121**, 98-9.
 Venzo river, **120**, 2.
 Verde, Monte, **117**, 2.
 Vigliani, Signor, arbitration award of, 1895, **121**, 98-9.
 Vijayanagar, Hindu Empire of, **115**, 14.
 Villa Baleira, **116**, 10-1; population, **116**, 14.
 Villa Franca, naval battle off, **116**, 17.
 Villa Franco do Campo, **116**, 8.
 Villa Pery, bank, **121**, 92.
 Villa do Porto, **116**, 5, 8.
 Villa de Vellas, **116**, 8.
 Viticulture, **116**, 14, 20, 28, 42, 44-5, 45, **120**, 53, **121**, 69.
 Voandzeia subterranea, **120**, 51.
 Volcanoes, **116**, 2, 4, 9, **117**, 3-4.
 Vumba, Mount, **121**, 99.

W.

- Wages, **117**, 19, 26, **118**, 20, **121**, 58-9.
 Wagons, cars and railway carriages, duty free, **117**, 34.
 Watches and clocks, duty, **120**, 81.
 Water-melons, **121**, 71.
 Water power, Madeira, **116**, 52.
 Waterville, cable, **116**, 26.
 Waterways, Portuguese Guinea, **118**, 14-5.
 Watson, Laidlaw & Co., Messrs. (Glasgow), **120**, 72.
 Wax, export, **118**, 29, **120**, 78, **121**, 85, 86.
 Weinstein & Co., **119**, 30-1.
 West Africa, Portuguese and German territories, boundaries, **121**, 32.
 West African colonisation, **115**, 23-4.
 West African cotton, **121**, 68.

West African Telegraph Co., **117**,
14, **18**, **31**, **33**, **119**, **20**, **120**, **35**,
38.
 West Coast of India, Portuguese
 strength on, **115**, **20**.
 West Indies, ships bound for, **116**,
8; sugar plantations, **116**, **20**.
 Western Africa Malachite Copper
 Mining Co., **120**, **69**.
 Whale oil, export, **120**, **67**, **78**, **121**,
85; factories for, **120**, **67**.
 Whaling, **116**, **7**, **8**, **30**, **117**, **28**, **119**,
29, **120**, **66**, **68**, **121**, **29**, **76**.
 Wheat, cultivation, **116**, **27**, **42**;
 import, **116**, **34**, **35**, **57**, **58**.
 Whisky, duty, **120**, **79**.
 White Star Line, **116**, **25**.
 Whydah, *see* São João Baptista
 d'Ajuda.
 Wickerwork, **116**, **31**, **51**; raw
 materials, export, **116**, **55**, **56**.
 Wickerwork furniture, export, **116**,
55.
 Window glass, import, **121**, **87**.
 Windward (Barlavento) Islands,
117, **1**.
 Wine merchants, Madeira, **116**, **53-4**.
 Wine-palm (*Raphia vinifera*), **118**,
24.
 Wine and spirits, distilling, **116**, **31**,
50, **121**, **58**, **63**, **118**, **30**; duty, **118**,
31, **120**, **81**; import, **116**, **34**, **35**,
55, **56**, **57**, **58**, **121**, **48**, **86**, **87**;
 Maderia, **116**, **21**; trade, **120**, **74**.
 Wine trade, **116**, **14**, **120**, **74**.
 Wireless, Angola, project for, sanc-
 tioned, **120**, **38**; Azores, **116**, **26**;
 Madeira, **116**, **41**; Mozambique,
121, **55**; Portuguese Nyasaland,
121, **45**; San Thomé, assignment
 to, **119**, **20**; San Vicente, **117**, **19**.
 Wissmann, Herr, exploration, **120**,
21.
 Witwatersrand Native Labour Asso-
 ciation, **119**, **22**, **121**, **57**.
 Woermann Linie, **116**, **40**, **118**, **17**,
18, **119**, **19**, **121**, **54**.
 Wolfram, **121**, **77**.
 Woollen goods, import, **116**, **34**,
120, **76**; manufacture, **116**, **31**.

X.

Xaianga, Rio, *see* Geba.
 Xime, cocoa-growing, **118**, **20**.
 Xitoli, coasting craft, **118**, **15**;
 factories, **118**, **15**, **28**; road, **118**,
14.

Y.

Yams, **116**, **28**.
 Yao, dialect, **121**, **18**.
 Yaos, tribe, **121**, **15**, **17-8**; Mo-
 hammedanism among, **121**, **33**.
 Yaws, **118**, **5**.
 Yellow fever, **117**, **5**, **118**, **5**.
 Yema, geodetic pillar, **120**, **1**.
 Yeoward Line, **116**, **40**.

Z.

Zaire river, *see* Congo.
 Zambezi delta, **121**, **23**; coco-nut
 palms, **121**, **64-5**.
 Zambezi province, cattle breeding,
121, **71**; forming of, **121**, **25**;
 Government, **121**, **25**; labour, **121**,
58; Portuguese power shrinks,
121, **29**; sugar factories, **121**, **62**.
 Zambezi river, **120**, **4**, **6**, **21**, **23**,
24, **32**, **121**, **2**, **3**, **5**, **6**, **8**, **23**, **30**,
31, **38**, **43**, **88**, **95**, **97**, **98**, **100**.
 Zambezi waterways, transit ex-
 emption, **121**, **89**.
 Zambezia, *see* Quelimane district.
 Zambezia Co., **121**, **65**, **66**, **68**, **75**,
94.
 Zanzibar, bank, **121**, **92**; cable con-
 nections, **121**, **55**; copal tree,
120, **52**; payment of tribute by,
115, **13**.
 Zanzibar, Sultans of, ceded Kilwa
 and other territory to Germany,
 (1890), **115**, **11**; Kilwa subject to
 (1850), **115**, **11**. power of, **121**, **15**.
 Zarco, *see* Gonçalves, João.
 Zealandia, Dutch send, to Delagoa
 Bay, **121**, **28**.
 Zenza, *see* Bengo.
 Zenze river, **120**, **1**.
 Zinc, **121**, **77**.
 Zombi river, **121**, **99**.
 Zombo, **120**, **59**.
 Zuchaf, lake, **120**, **18**.
 Zulu-Kafir dialect, **121**, **18**.
 Zulus (Vatwas), **121**, **16**, **17**; in-
 vasion, **1833**, **121**, **29**; movement,
121, **16**.
 Zumbo, **120**, **21**, **121**, **9**, **38**, **43**;
 abandoned and reoccupied, **121**
29; deserted ruin, **121**, **30**;
 feira, attempt to revive, **121**, **30**;
 telegraph system, **121**, **56**; wire-
 less station, proposal, **121**, **55**.

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